



Corridor Program

Congestion Relief & Bus Rapid Transit Projects

APPENDIX T6

HOV Design Guide For the Northwest Region

**I-405, SR520 to SR522 Stage 1
(Kirkland Stage 1)**

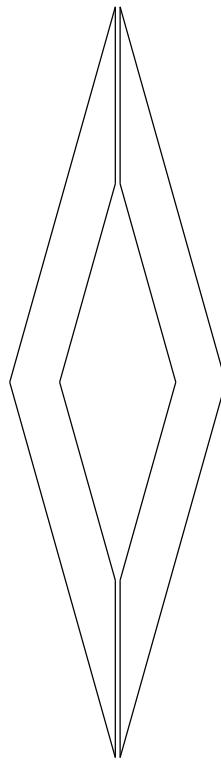
**Request For Proposal
July 15, 2005**



**Washington State
Department of Transportation**

HOV DESIGN GUIDE

**FOR THE
NORTHWEST REGION**



HOV Operations
NW Region Traffic MS-120
Washington State Department of Transportation
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Seattle, WA 98133-9710
(206) 440-4456

FORWARD

The HOV Design Guide is developed by the WSDOT Northwest Region HOV Section (Traffic) for use by the HOV facility design and operation offices. The Manual provides guidelines for placement of the HOV signs and pavement marking for freeway, ramp and arterial HOV and Transit facilities.

It is recommended that the user check with the NW Region HOV Section in order to verify the latest revision of the Design Guide or if the situation under consideration is unique and it is not covered in the Guide. Also, location of the HOV signs should be coordinated with other general purpose freeway signs.

Thanks to Traffic Analysis, Signing Design, General Operations and Freeway Operations groups for their comments and input in preparing the HOV Design Guide. Also, Special thanks to Belqies Jalalyar and John Firouzi of the HOV group for their contribution.

Every effort has been made to provide correct information. However, please feel free to contact us if you find any discrepancies between this Guide and the MUTCD and WSDOT Design Manual, Standard Plans and Standard Specifications.

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NW Region Traffic MS 120
(206) 440-4456

E-mail: forbisl@wsdot.wa.gov

March 2005

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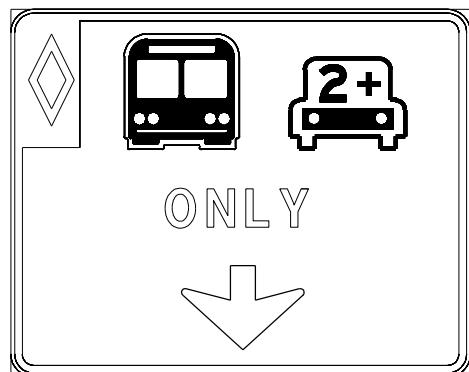
Section 1

Mainline Freeways

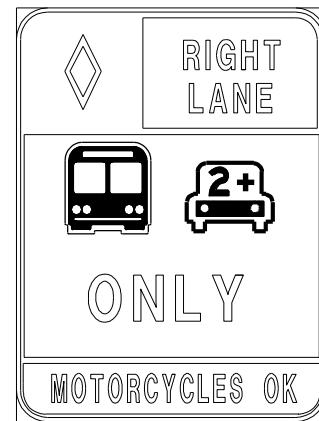
TYPICAL FREEWAY LEFT SIDE HOV LANE

(SIGNS AND SCHEMATIC--NOT TO SCALE)

(CHECK DIMENSIONS ON SIGN SHEETS)



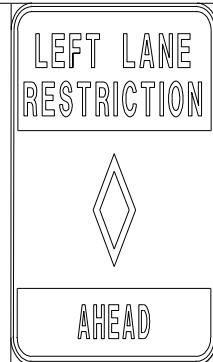
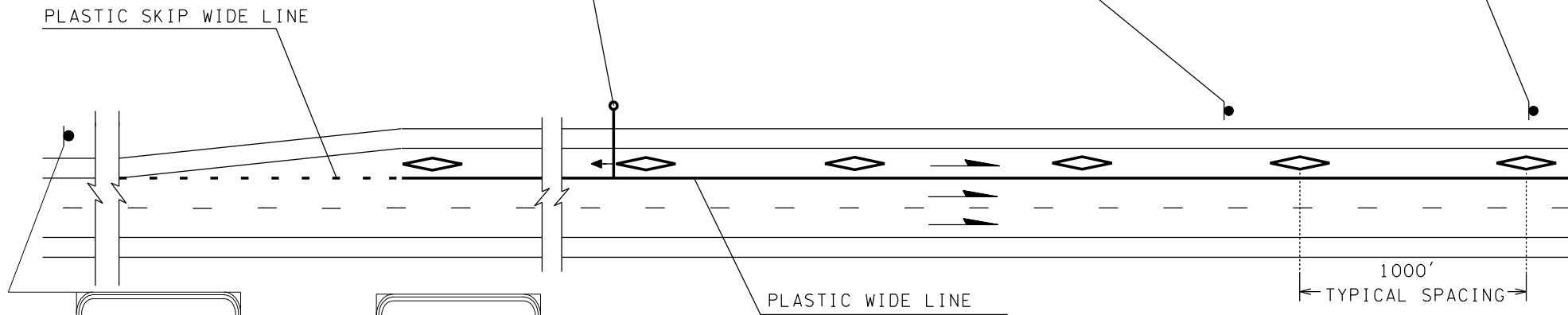
R3-1401MOD
BLACK ON WHITE



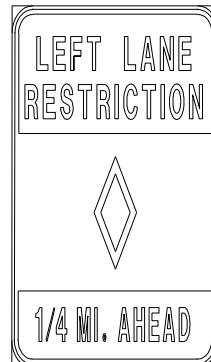
R3-1102R MOD
BLACK ON WHITE



I10-101
WHITE ON BLUE



R3-103
BLACK ON WHITE



R3-103 MOD
BLACK ON WHITE

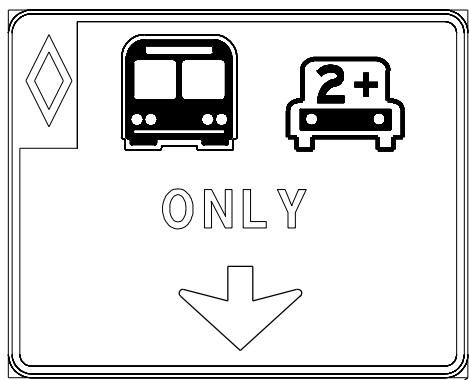
NOTES:

- 1) HOV SIGN SPACING PATTERN--REFER TO PAGE 1-2.
- 2) FREEWAY HOV LANE SYMBOLS ARE 12', PER DETAIL.
- 3) 500' MIN. SPACING TO OTHER SIGNS, 800' DESIRABLE--
TYPICAL FOR ALL SHEETS EXCEPT RAMPS AND ARTERIALS.
- 4) PLASTIC STRIPING REFERS TO TYPE A OR D MATERIAL SS 9-34.
- 5) FOR VARIABLE HOUR OPERATION USE SIGNS FROM SIGN DETAILS.

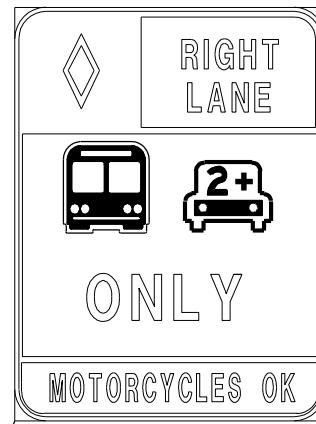
HOV SIGN SEQUENCE

(SIGNS AND SCHEMATIC--NOT TO SCALE)

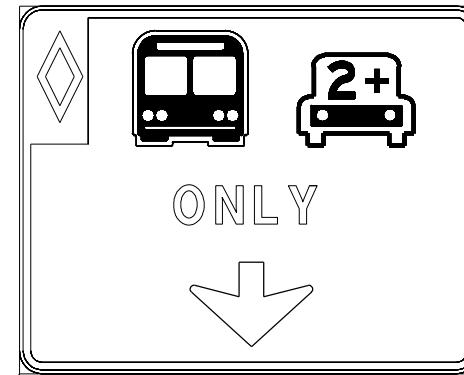
(CHECK DIMENSIONS ON SIGN SHEETS)



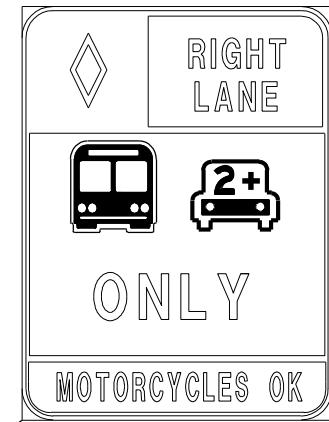
R3-1401MOD
BLACK ON WHITE



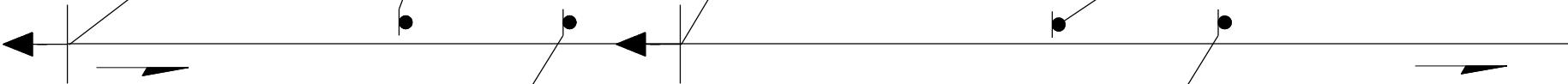
R3-1102R MOD
BLACK ON WHITE



R3-1401MOD
BLACK ON WHITE



R3-1102R MOD
BLACK ON WHITE



I 10-101
WHITE ON BLUE



I 10-101
WHITE ON BLUE

REPEAT
SEQUENCE

NOTES:

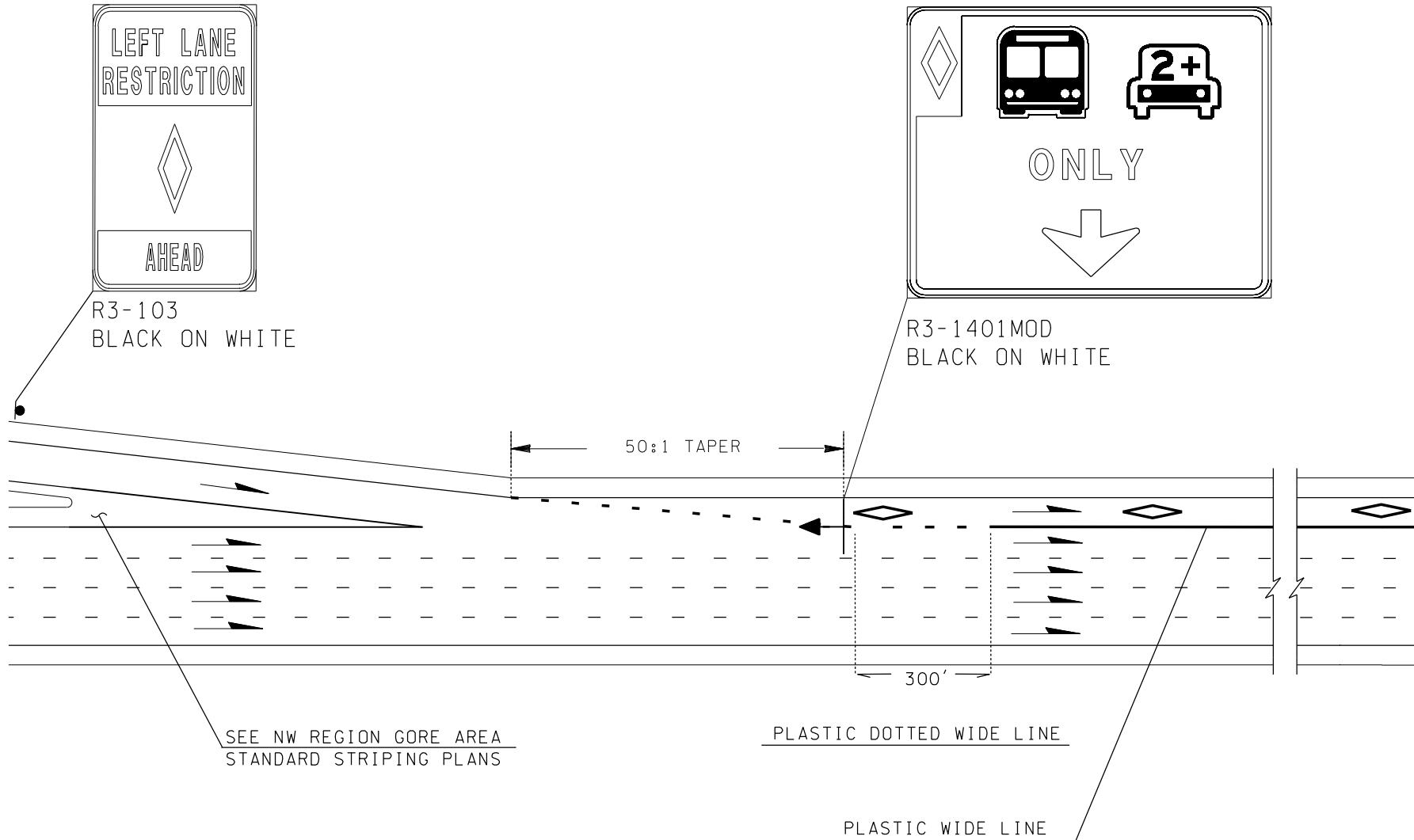
SIGN SPACING TO BE 1 MILE

AND MAY VARY DUE TO SPACING AND AVAILABILITY OF EXISTING BRIDGES AND SIGN STRUCTURES.

FOR VARIABLE HOUR OPERATION USE SIGNS FROM SIGN DETAILS.

BEGIN LEFT SIDE HOV LANE AT RAMP

(SIGNS AND SCHEMATIC--NOT TO SCALE)
(CHECK DIMENSIONS ON SIGN SHEETS)



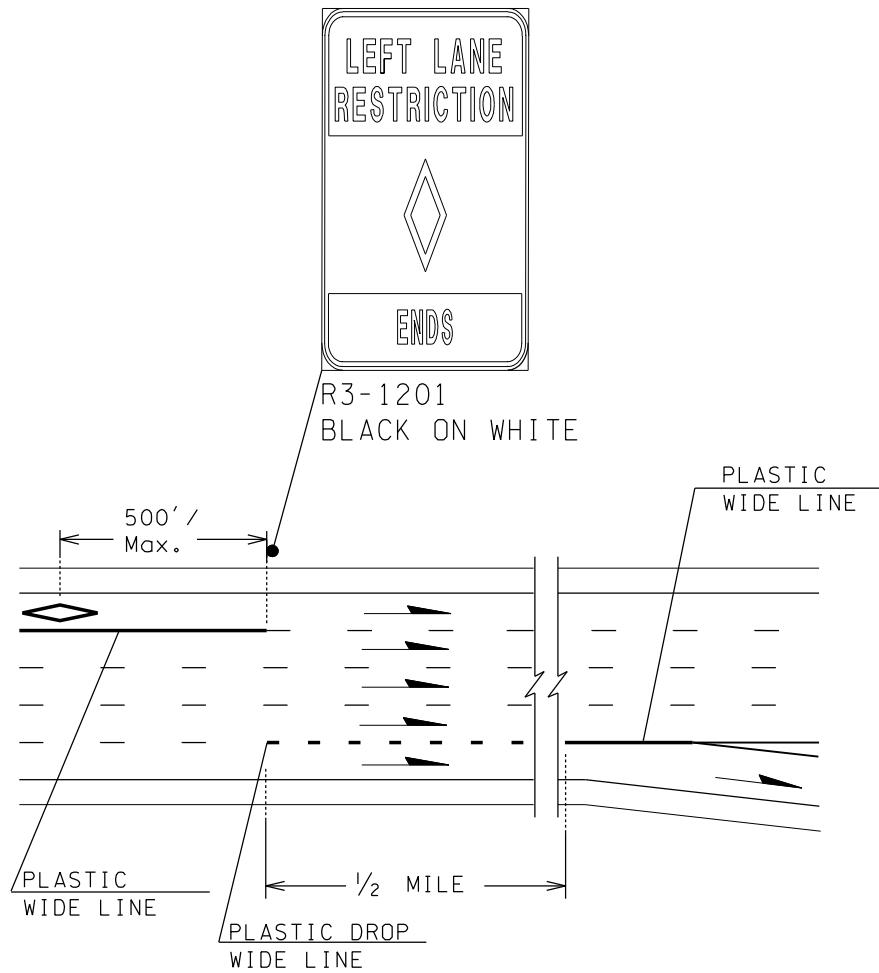
NOTES:

- 1) PLASTIC WIDE LINE TO BE TYPE A OR D MATERIAL, SS 9-34.
- 2) HOV LANE SYMBOLS ARE 12' PER DETAIL
- 3) FOR VARIABLE HOUR OPERATION USE SIGNS FROM SIGN DETAILS.

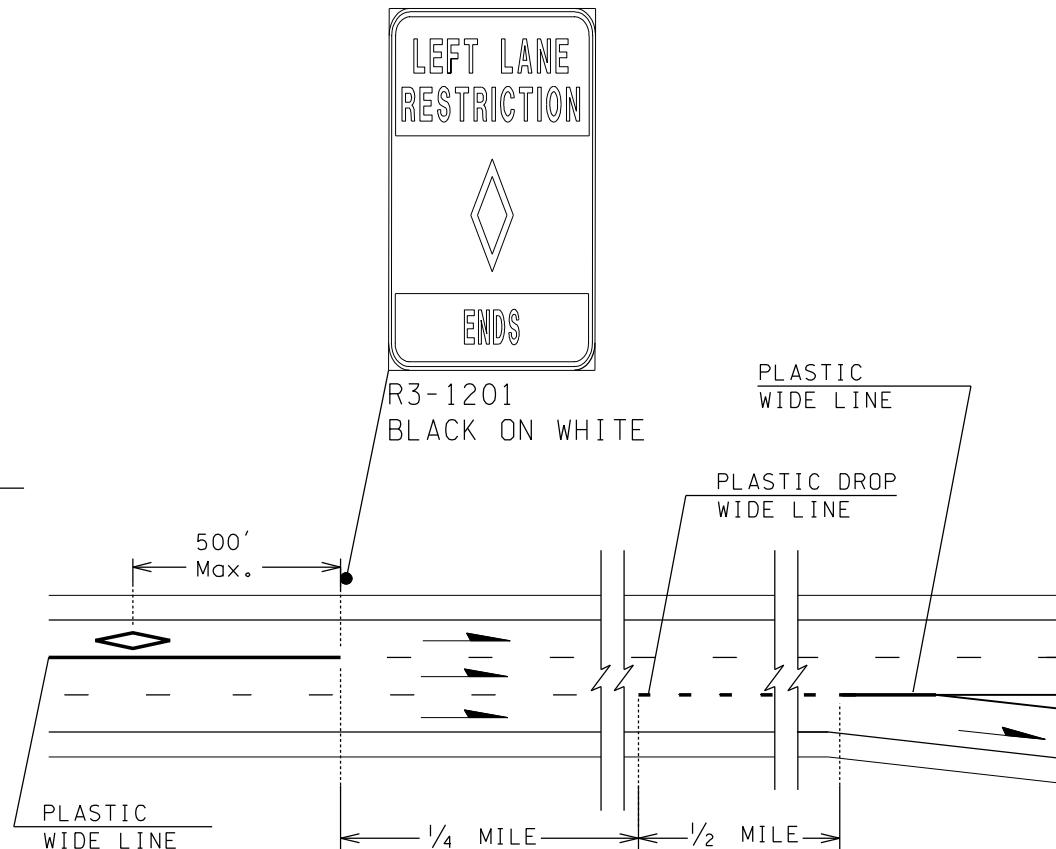
END LEFT SIDE HOV LANE TYPE 1 (PREFERRED)

*(SIGNS AND SCHEMATIC - NOT TO SCALE)
(CHECK DIMENSIONS ON SIGN SHEETS)*

MORE THAN 2 GP LANES



2 OR LESS GP LANES



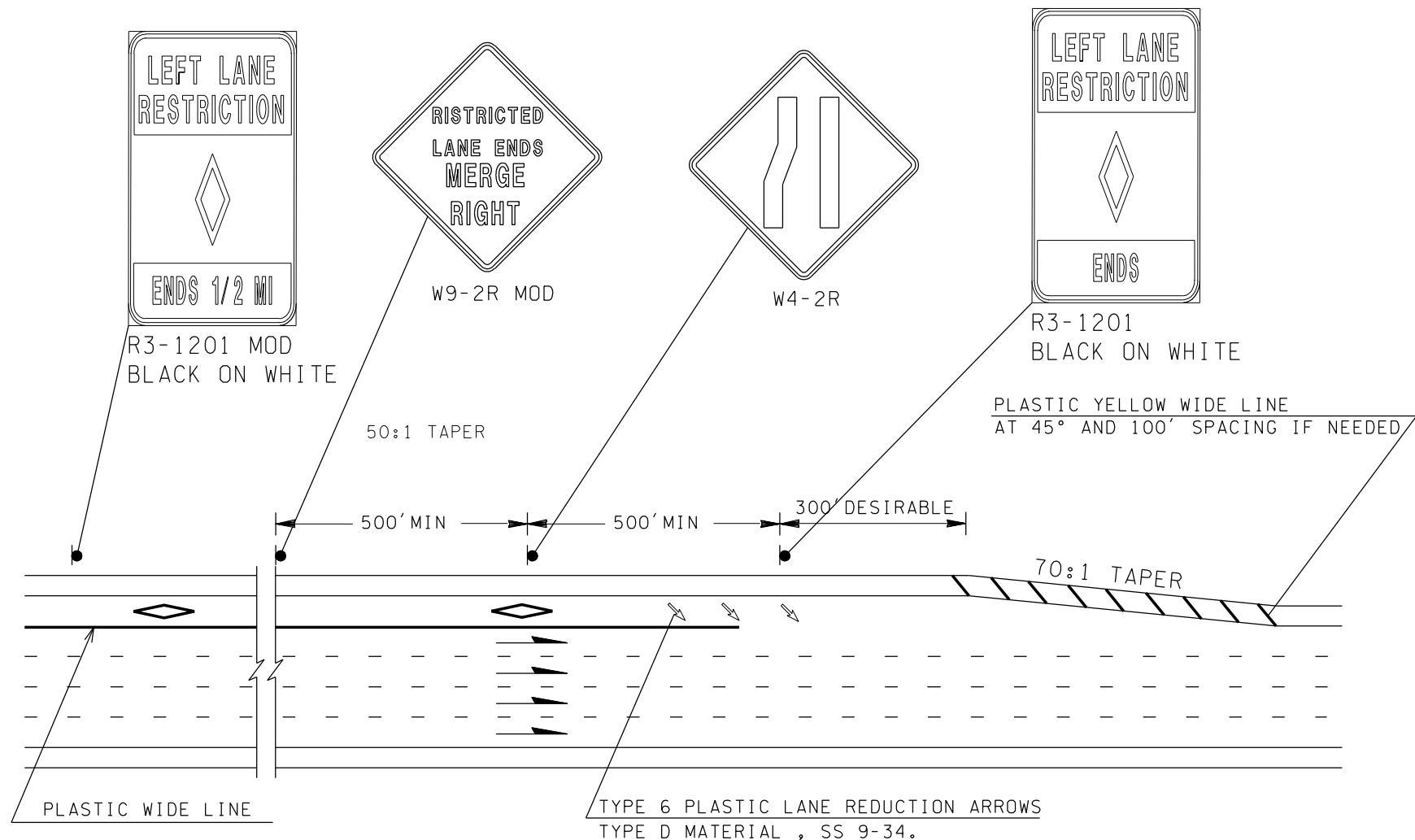
NOTES:

- 1) SEE STANDARD PLAN H-5a AND H-5d FOR WIDE AND DROP LANE LINE.
- 2) PLASTIC STRIPING REFERS TO TYPE A OR D MATERIAL, SS 9-34.
- 3) HOV LANE SYMBOLS ARE 12' PER DETAIL
- 4) FREEWAY SPACING FOR HOV LANE SYMBOLS TO BE 1000'

END LEFT SIDE HOV LANE TYPE 2

(SIGNS AND SCHEMATIC--NOT TO SCALE)

(CHECK DIMENSIONS ON SIGN SHEETS)



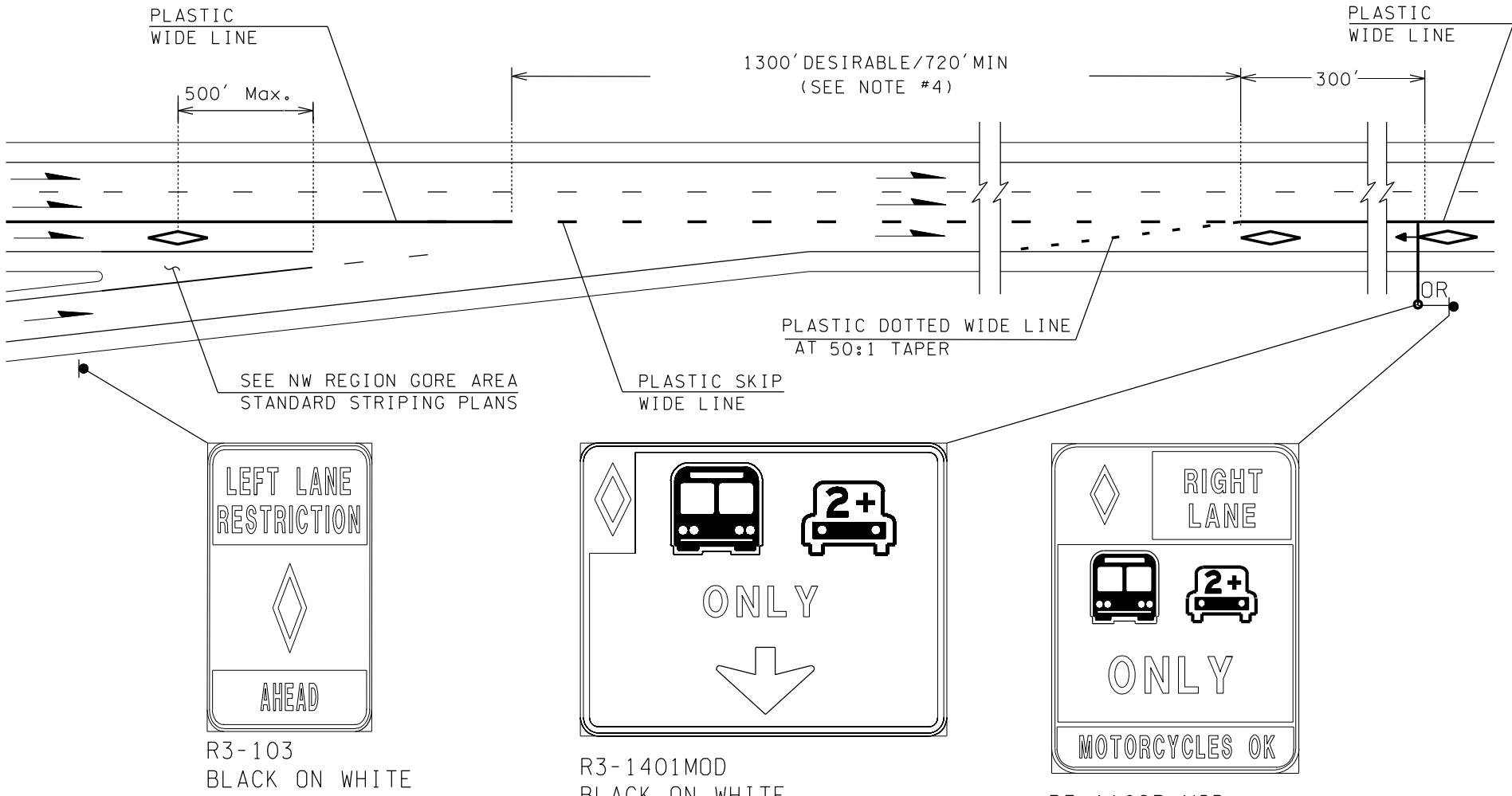
NOTES:

- 1) PLASTIC LINES REFER TO TYPE A OR D MATERIAL, SS-34
- 2) HOV LANE SYMBOLS 12 PER DETAIL
- 3) FREEWAY SPACING FOR HOV LANE SYMBOLS TO BE 1000'
- 4) ORANGE METALLIC FLAGS TO BE REMOVED AFTER 30-90 DAYS
- 5) CHECK WITH ASSISTANT TRAFFIC OPERATIONS ENGINEER FOR SPACING OF LANE REDUCTION ARROWS.

RIGHT SIDE HOV LANE ON CONNECTION

(SIGNS AND SCHEMATIC--NOT TO SCALE)

(CHECK DIMENSION ON SIGN SHEETS)

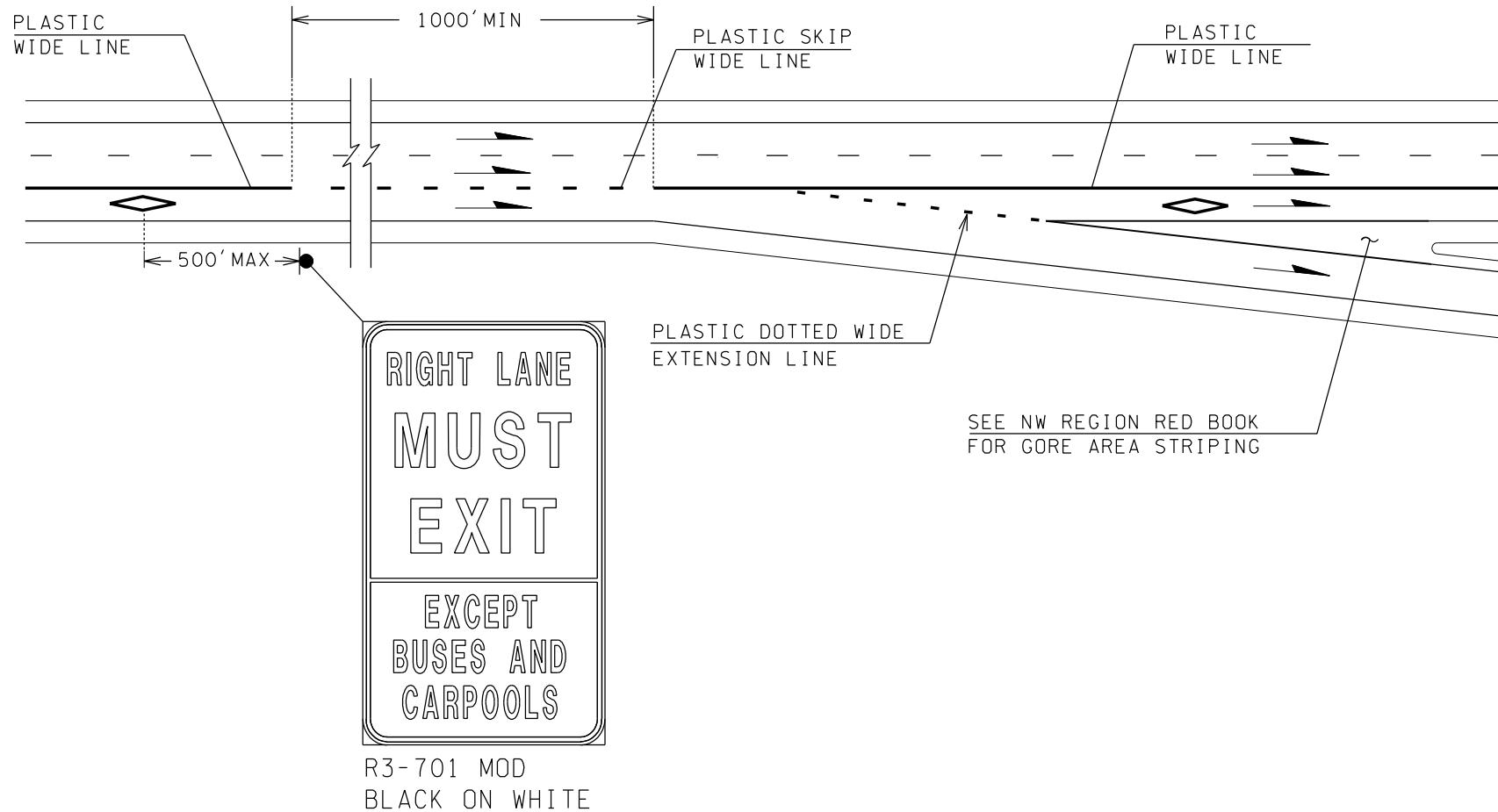


NOTES:

- 1) HOV SIGN SPACING PATTERN--REFER TO PAGE 1-2.
- 2) FREEWAY HOV LANE SYMBOLS ARE 12', PER DETAIL.
- 3) 500' MIN. SPACING TO OTHER SIGNS, 800' DESIRABLE--
TYPICAL FOR ALL SHEETS EXCEPT RAMPS AND ARTERIALS..
- 4) PLASTIC STRIPING REFERS TO TYPE A OR D MATERIAL SS 9-34.
- 5) FOR VARIABLE HOUR OPERATION USE SIGNS FROM SIGN DETAILS.

RIGHT SIDE HOV LANE OFF CONNECTION

(SIGNS AND SCHEMATIC--NOT TO SCALE)
(CHECK DIMENSION ON SIGN SHEETS)

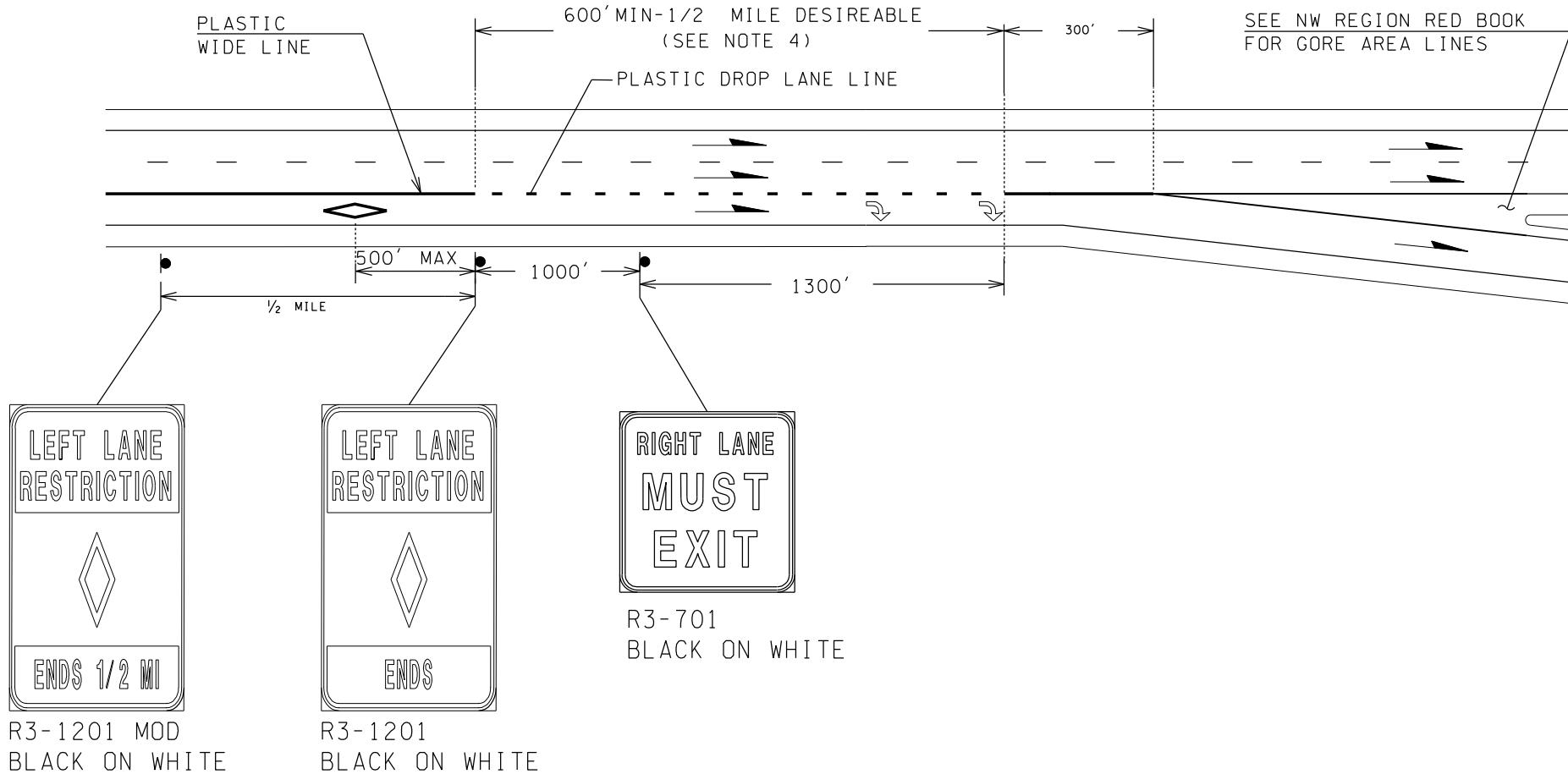


NOTES:

- 1) FREEWAY SPACING FOR HOV LANE SYMBOLS TO BE 1000'
- 2) PLASTIC STRIPING REFERS TO TYPE A OR D MATERIAL, SS 9-34
- 3) HOV LANE SYMBOLS ARE 12', PER DETAIL

END RIGHT SIDE HOV LANE

(SIGNS AND SCHEMATIC--NOT TO SCALE)
(CHECK DIMENSION ON SIGN SHEETS)



NOTES:

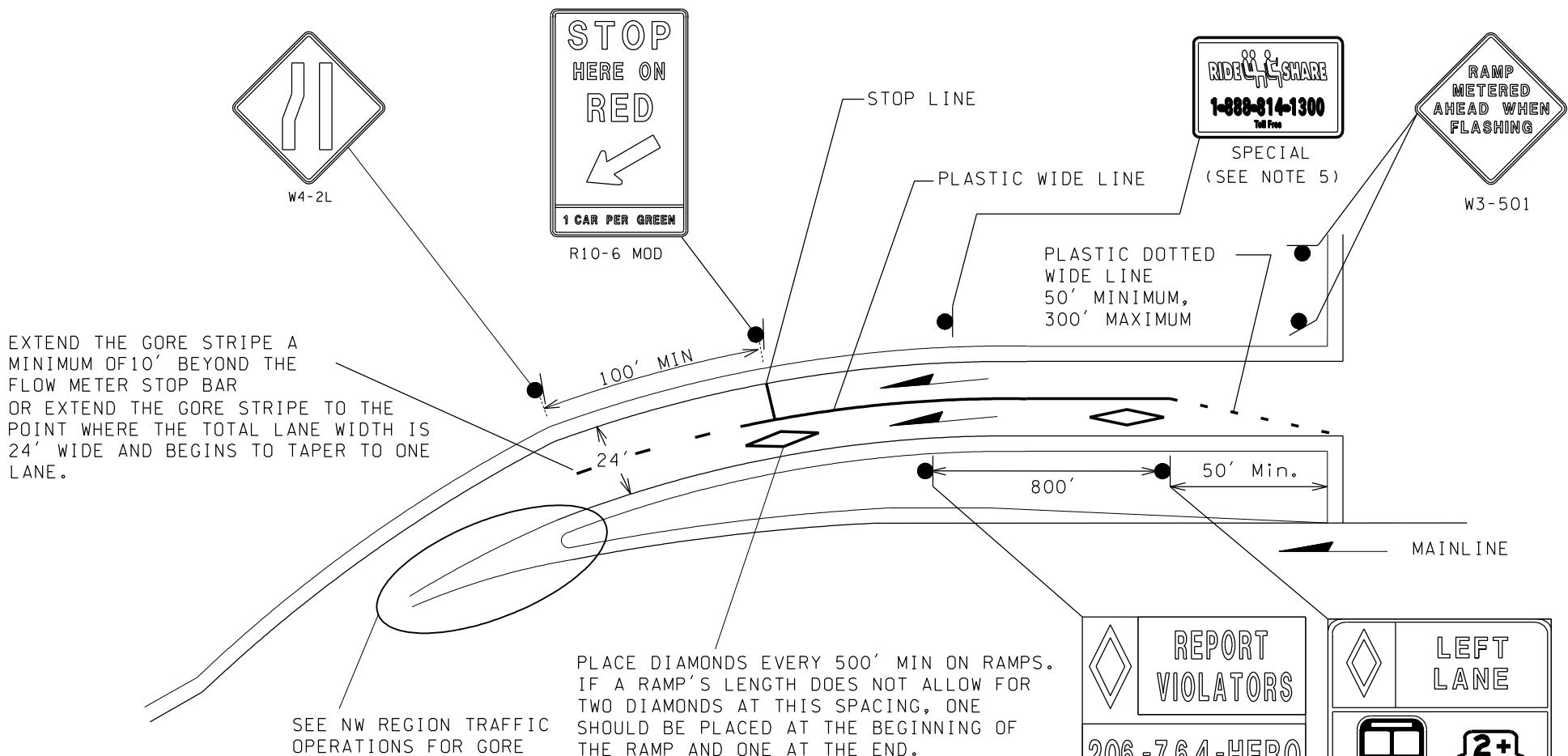
- 1) FREEWAY SPACING FOR HOV LANE SYMBOLS TO BE 1000'.
- 2) PLASTIC LINES REFERS TO TYPE A OR D MATERIAL, SS 9-34.
- 3) HOV LANE SYMBOLS ARE 12', PER DETAIL.
- 4) ALL THE SPACING MEASUREMENT IS IN NW REGION RED BOOK.

Section 2

Ramps

SINGLE METERED RAMP WITH HOV BYPASS

(SIGNS AND SCHEMATIC--NOT TO SCALE)
(CHECK DIMENSIONS ON SIGN SHEETS)



NOTES:

- 1) HOV LANE SYMBOLS FOR ON-RAMPS ARE 12', PER DETAIL.
- 2) IF LENGTH OF RAMP OR SIGHT DISTANCE DICTATE, A SECOND SIGN R3-1102L SHOULD BE USED.
- 3) PLASTIC LINES REFERS TO TYPE A OR D MATERIAL, SS 9-34
- 4) COORDINATE HOV SIGN SPACING WITH SIGN DESIGN AND GENERAL OPERATIONS.
- 5) INCLUDE RIDESHARE SIGN ONLY IF SPACING PERMITS
- 6) SEE DESIGN MANUAL FOR ENFORCEMENT AREA AND TYPICAL DESIGN ELEMENTS.

DOUBLE METERED RAMP WITH HOV BYPASS

(SIGNS AND SCHEMATIC--NOT TO SCALE)

(CHECK DIMENSIONS ON SIGN SHEETS)

EXTEND THE WIDE LINE A
MINIMUM OF 10' BEYOND THE
FLOW METER STOP BAR
OR TO THE POINT WHERE THE TOTAL
LANE WIDTH IS 24' WIDE AND BEGINS
TO TAPER TO ONE LANE.

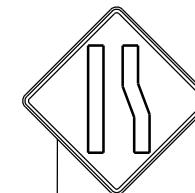
SEE NW REGION TRAFFIC
OPERATIONS RED BOOK FOR GORE
DELINEATION DETAILS

PLACE DIAMONDS EVERY 500' MIN ON RAMPS.
IF A RAMP'S LENGTH DOES NOT ALLOW FOR
TWO DIAMONDS AT THIS SPACING, ONE
SHOULD BE PLACED AT THE BEGINNING OF
THE RAMP AND ONE AT THE END. A THIRD DIAMOND
MAY BE NEEDED ON SHORT LOOP RAMPS,
FOR SIGHT DISTANCE PURPOSES.

PLASTIC WIDE LINE

CANTILEVER SIGNAL POLE

1 CAR PER GREEN
EACH LANE



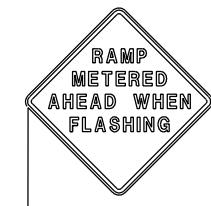
W4-2L



R10-6



SPECIAL
(SEE NOTE 5)



W3-501

STOP LINE

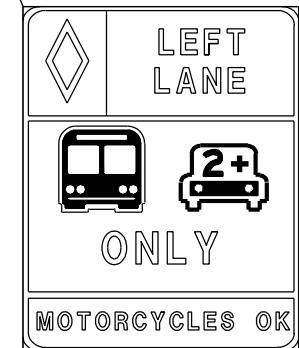
PLASTIC DOTTED WIDE
LINE 50' MINIMUM,
300' MAXIMUM

MAINLINE

800' 50' Min



I10-101
WHITE ON BLUE



R3-1102L
BLACK ON WHITE

NOTES:

- 1) HOV LANE SYMBOLS FOR ON-RAMPS ARE 12', PER DETAIL.
- 2) IF LENGTH OF RAMP OR SIGHT DISTANCE DICTATE, A SECOND SIGN R3-1102R SHOULD BE USED.
- 3) PLASTIC STRIPING REFERS TO TYPE A OR D MATERIAL, SS 9-34.
- 4) COORDINATE HOV SIGN SPACING WITH SIGN DESIGN AND GENERAL OPERATIONS.
- 5) INCLUDE RIDESHARE SIGN ONLY IF SPACING PERMITS.
- 6) SEE DESIGN MANUAL FOR ENFORCEMENT AREA AND TYPICAL DESIGN ELEMENTS.

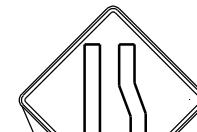
DOUBLE METERED RAMP WITH HOV BYPASS

(SIGNS AND SCHEMATIC--NOT TO SCALE)
(CHECK DIMENSIONS ON SIGN SHEETS)

EXTEND THE WIDE LINE A
MINIMUM OF 10' BEYOND THE
FLOW METER STOP BAR
OR TO THE POINT WHERE
THE TOTAL LANE WIDTH IS
24' WIDE AND BEGINS TO TAPER TO ONE
LANE.

CANTILEVER SIGNAL POLE

1 CAR PER GREEN
EACH LANE
R3-1403



W4-2L

STOP
HERE ON
RED
R10-6

RIDE &
SHARE
1-888-814-1300
Toll Free

SPECIAL
(SEE NOTE 5)

RAMP
METERED
AHEAD WHEN
FLASHING
W3-501

USE CHEVRONS IF NOT
RAISED ISLAND

PLASTIC DOTTED WIDE
LINE 50' MINIMUM,
300' MAXIMUM

SEE NW REGION TRAFFIC
OPERATIONS RED BOOK FOR GORE
DELINEATION DETAILS

PLACE DIAMONDS EVERY 500' MIN ON RAMPS
IF A RAMP'S LENGTH DOES NOT ALLOW FOR
TWO DIAMONDS AT THIS SPACING ONE
SHOULD BE PLACED AT THE BEGINNING OF
THE RAMP AND ONE AT THE END.

A THIRD DIAMOND MAY BE
NEEDED ON SHORT LOOP RAMPS FOR SIGHT DISTANCE
PURPOSES.

PLASTIC WIDE LINE

MAINLINE

REPORT
VIOLATORS
206-764-HERO

I 10-101
WHITE ON BLUE

LEFT
LANE
ONLY
MOTORCYCLES OK

R3-1102L
BLACK ON WHITE

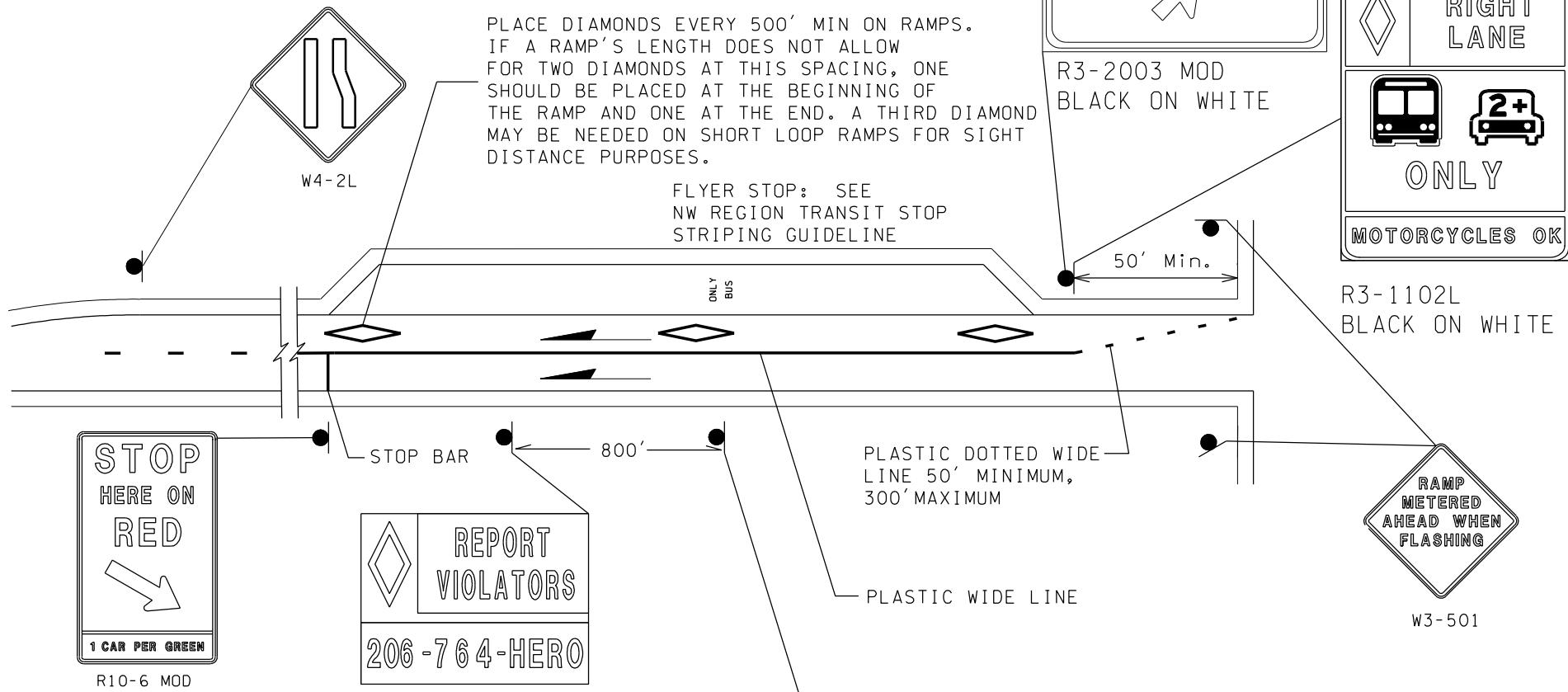
NOTES:

- 1) HOV LANE SYMBOLS FOR ON-RAMPS ARE 12' METHYL METHACRYLATE, PER DETAIL.
- 2) IF LENGTH OF RAMP OR SIGHT DISTANCE DICTATE,
A SECOND SIGN R3-1102L SHOULD BE USED.
- 3) PLASTIC STRIPING REFERS TO TYPE A OR D MATERIAL, SS 9-34.
- 4) COORDINATE HOV SIGN SPACING WITH SIGN DESIGN AND GENERAL OPERATIONS
- 5) INCLUDE RIDESHARE SIGN ONLY IF SPACING PERMITS.
- 6) SEE DESIGN MANUAL FOR ENFORCEMENT AREA AND TYPICAL DESIGN ELEMENTS.

BUS PULL OUT AND HOV ON RAMP

(SIGNS AND SCHEMATIC--NOT TO SCALE)
(CHECK DIMENSIONS ON SIGN SHEETS)

EXTEND THE WIDE LINE A
MINIMUM OF 10' BEYOND THE
FLOW METER STOP BAR
OR TO THE POINT WHERE THE TOTAL
LANE WIDTH IS 24' WIDE AND BEGINS
TO TAPER TO ONE LANE.



NOTES:

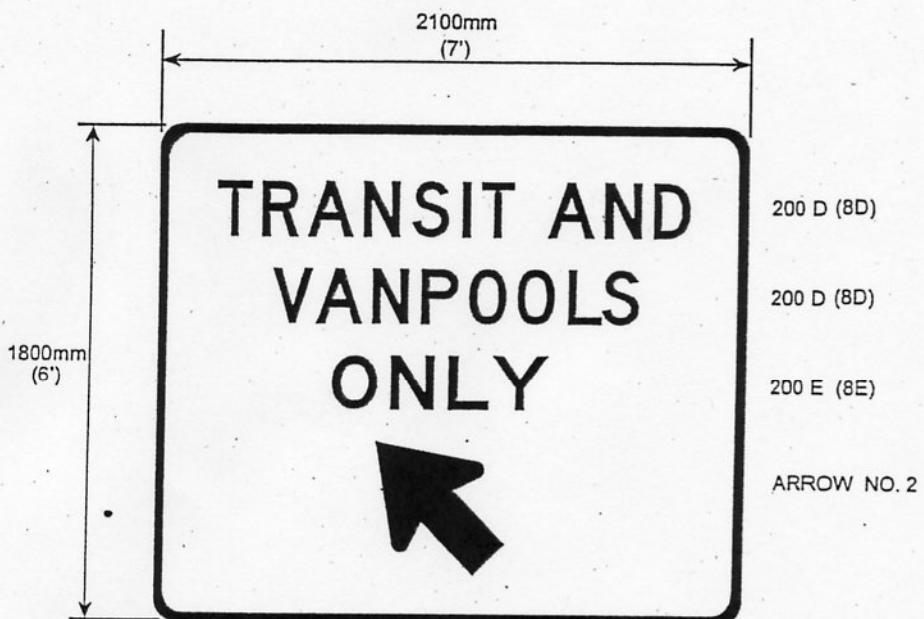
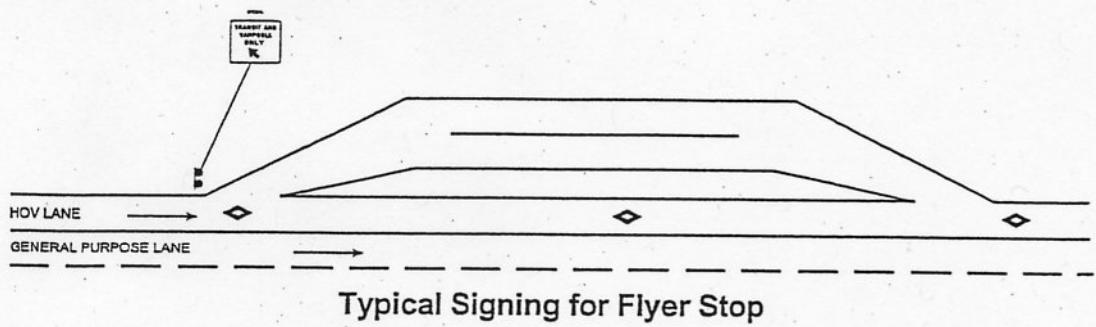
- 1) HOV LANE SYMBOLS FOR ON-RAMPS ARE 12' METHYL METHACRYLATE, PER DETAIL.
- 2) IF LENGTH OF RAMP OR SIGHT DISTANCE DICTATE, A SECOND SIGN
R3-1102R SHOULD BE USED.
- 3) PLASTIC LINES REFERS TO THERMOPLASTIC OR METHYL METHACRYLATE
- 4) COORDINATE HOV SIGN SPACING WITH SIGN DESIGN AND GENERAL OPERATIONS.
- 5) INCLUDE RIDESHARE SIGN ONLY IF SPACING PERMITS
- 6) SEE DESIGN MANUAL FOR ENFORCEMENT AREA AND TYPICAL DESIGN ELEMENTS.



SPECIAL
(SEE NOTE 5)

Section 3

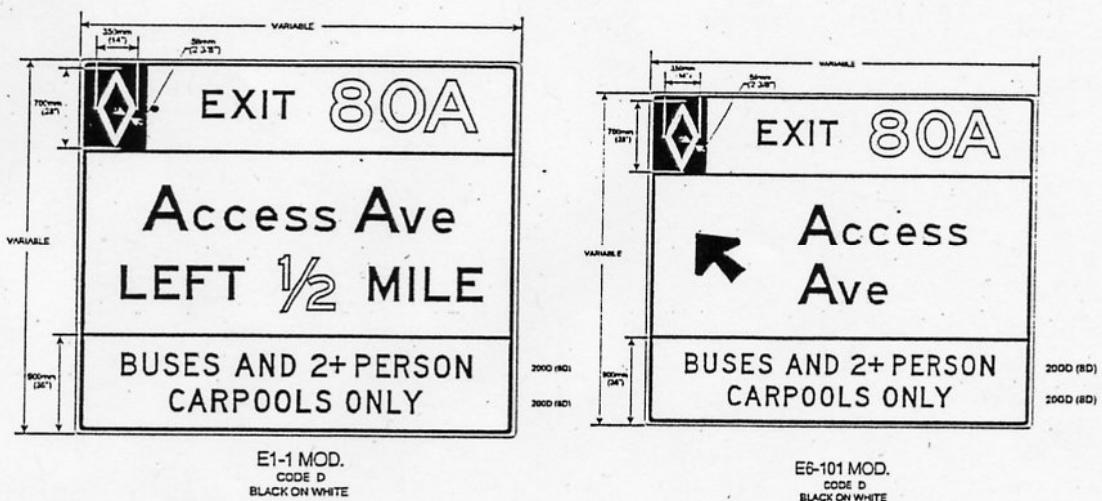
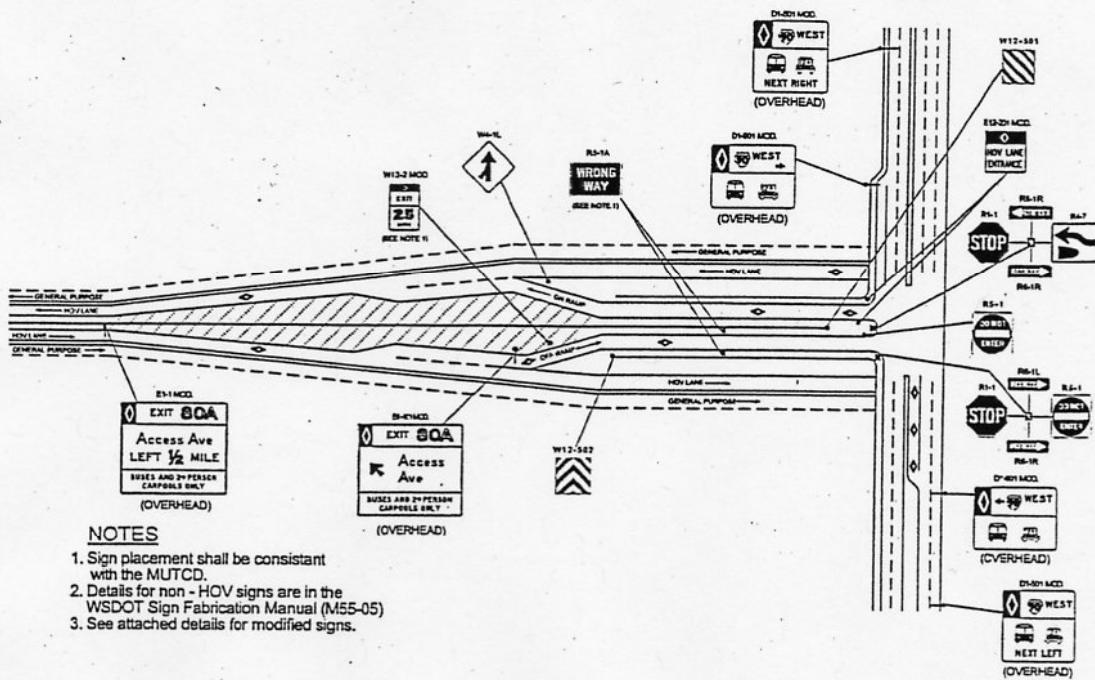
Direct Access (Draft)



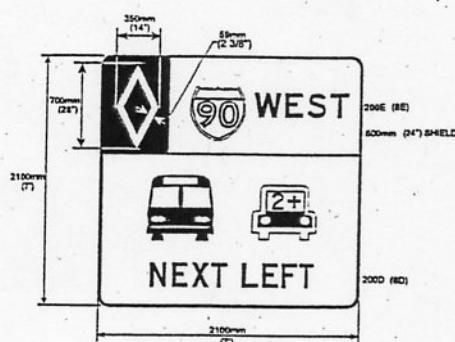
SPECIAL
BLACK ON WHITE

Special Flyer Stop Sign

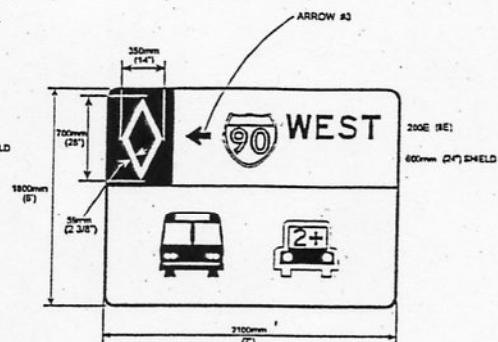
Flyer Stop Signing
Figure 7-2



HOV Direct Access Signing
Figure 7-3a



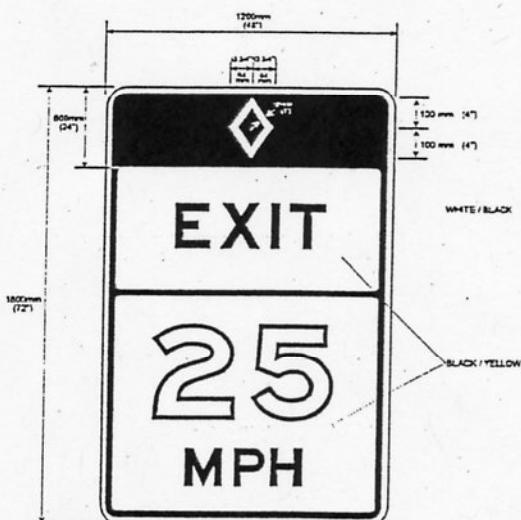
D1-501 MOD.
BLACK ON WHITE



D1-901 MOD.
BLACK ON WHITE



E12-201 MOD.
BLACK ON WHITE



W13-2 MOD

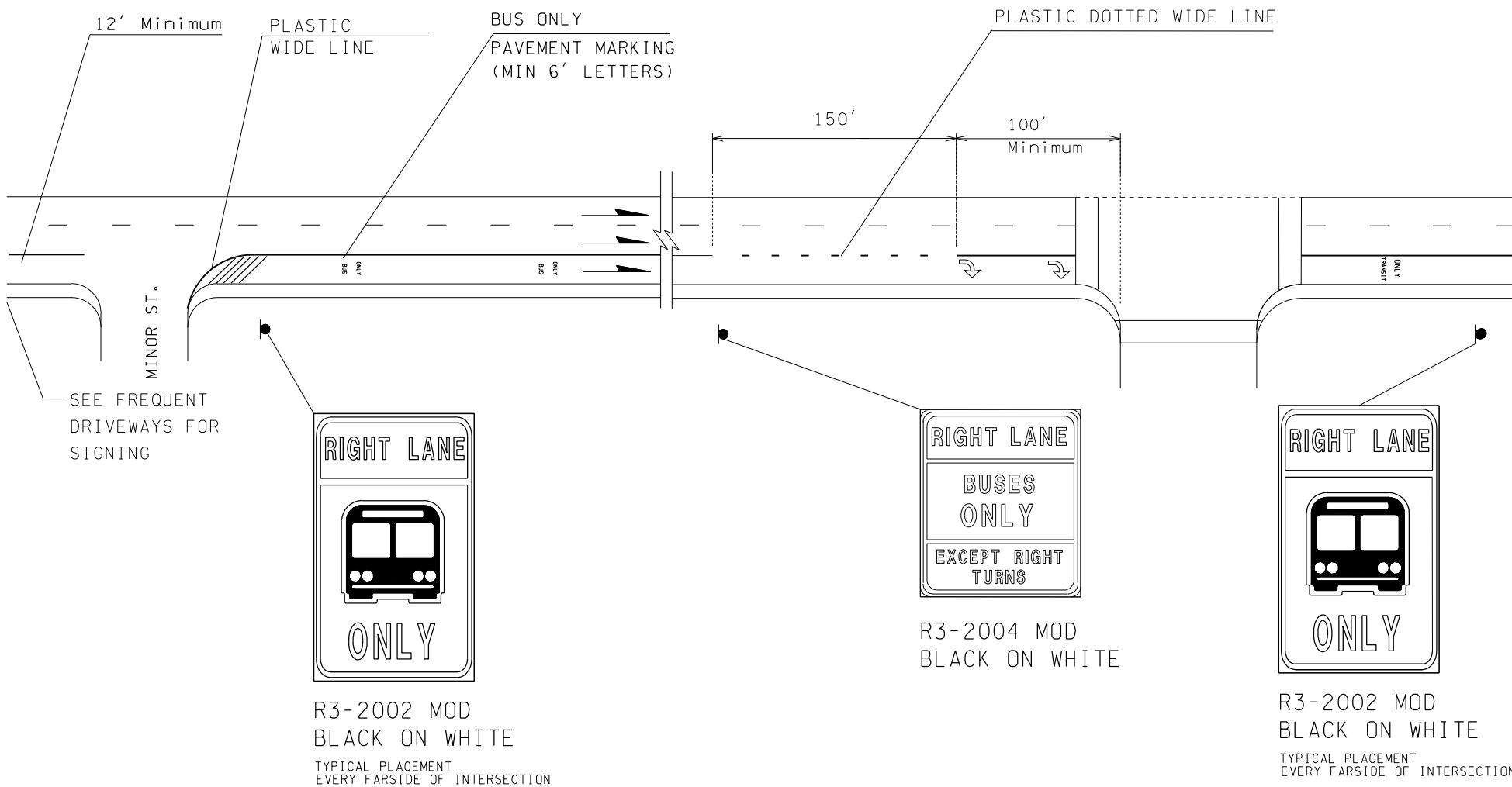
HOV Direct Access Signing (continued) Figure 7-3b

Section 4

Arterials

TYPICAL ARTERIAL BUS LANE FOR SIGNALIZED INTERSECTION

(SIGNS AND SCHEMATIC--NOT TO SCALE)
(CHECK DIMENSIONS ON SIGN SHEETS)



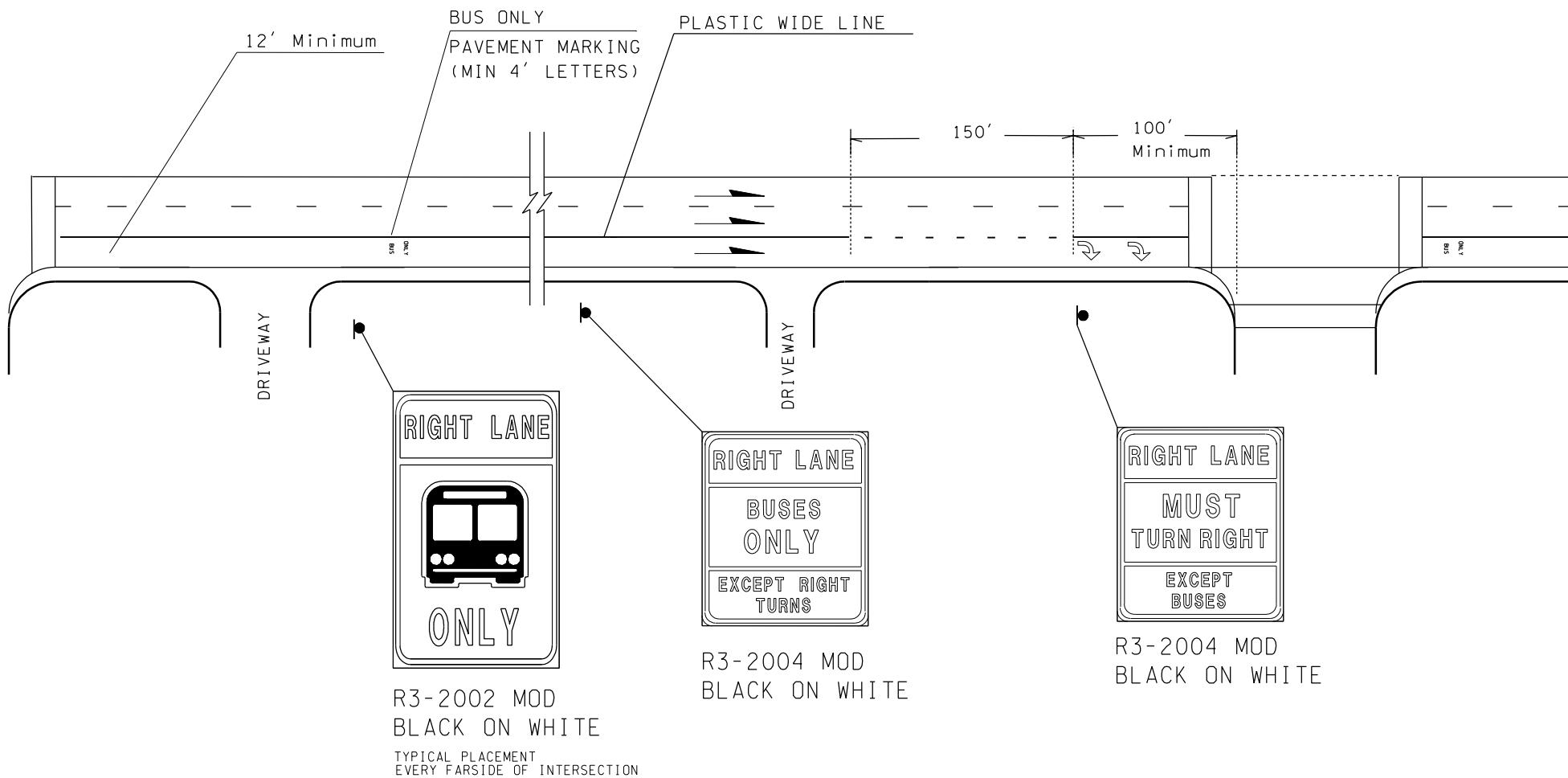
NOTES:

- 1) ARTERIAL SPACING FOR BUS LANE MARKINGS TO BE 500'
- 2) BUS SIGN SPACINGS SHOULD BE COORDINATED WITH ALL OTHER SIGNS AND NOT LESS THAN 500'
- 3) PLASTIC STRIPING REFERS TO TYPE A OR D MATERIAL, SS 9-34.
- 4) ARROWS/CROSSWALK/PER STANDARD PLAN/ADA REQUIREMENTS
- 5) BUS LANE MARKINGS ON ARTERIALS ARE 4', PER DETAIL

TYPICAL ARTERIAL BUS LANE WITH FREQUENT DRIVEWAYS

(SIGNS AND SCHEMATIC--NOT TO SCALE)

(CHECK DIMENSIONS ON SIGN SHEETS)



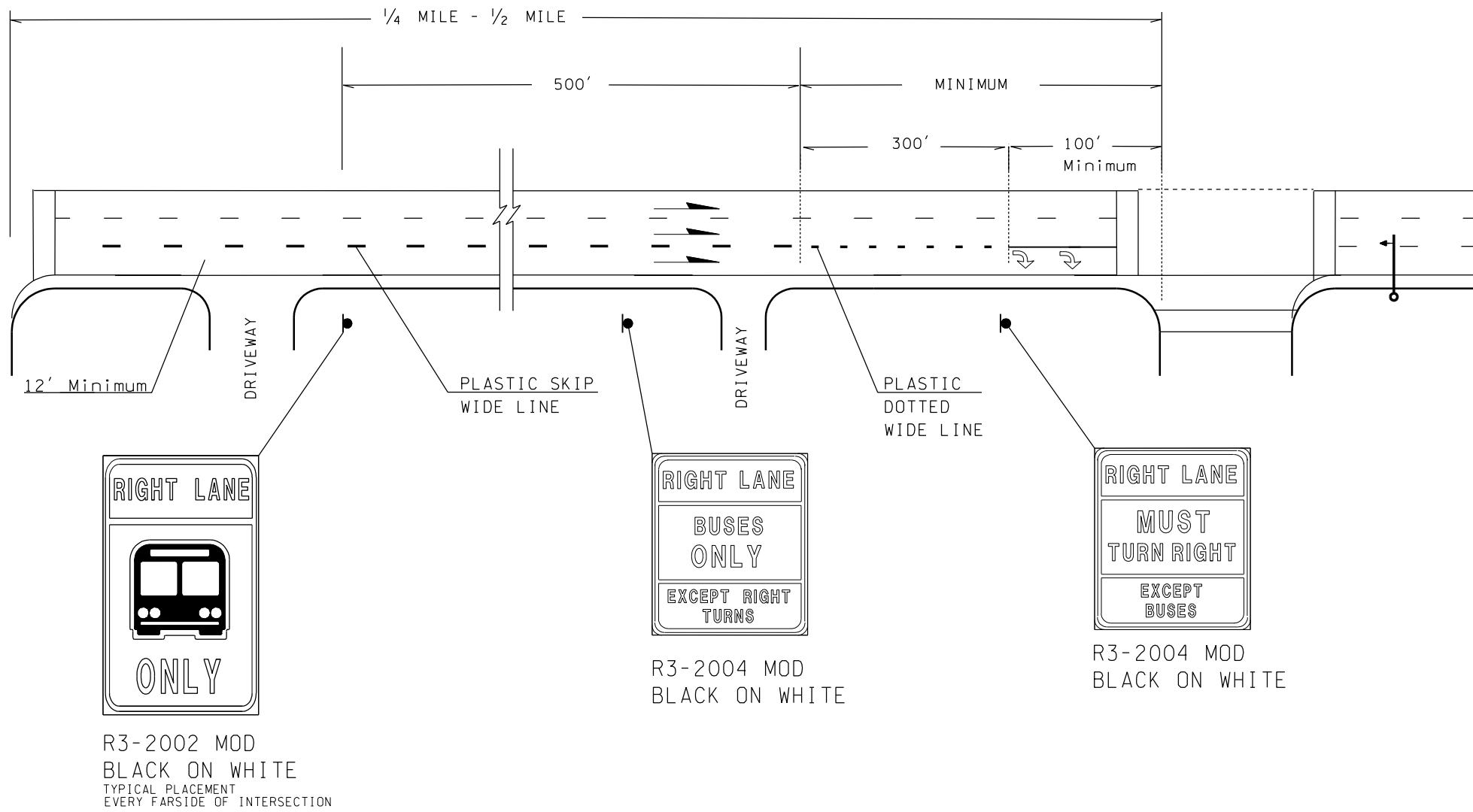
NOTES:

- 1) ARTERIAL SPACING FOR BUS LANE MARKINGS TO BE 500'
- 2) BUS SIGN SPACINGS SHOULD BE COORDINATED WITH ALL OTHER SIGNS AND NOT LESS THAN 500'
- 3) PLASTIC STRIPING REFERS TO TYPE A OR D MATERIAL, SS 9-34.
- 4) ARROWS/CROSSWALK/PER STANDARD PLAN/ADA REQUIREMENTS
- 5) BUS LANE MARKINGS ARE 4', PER DETAIL.

TYPICAL ARTERIAL BUS LANE WITH FREQUENT DRIVEWAYS

(SIGNS AND SCHEMATIC--NOT TO SCALE)

(CHECK DIMENSIONS ON SIGN SHEETS)



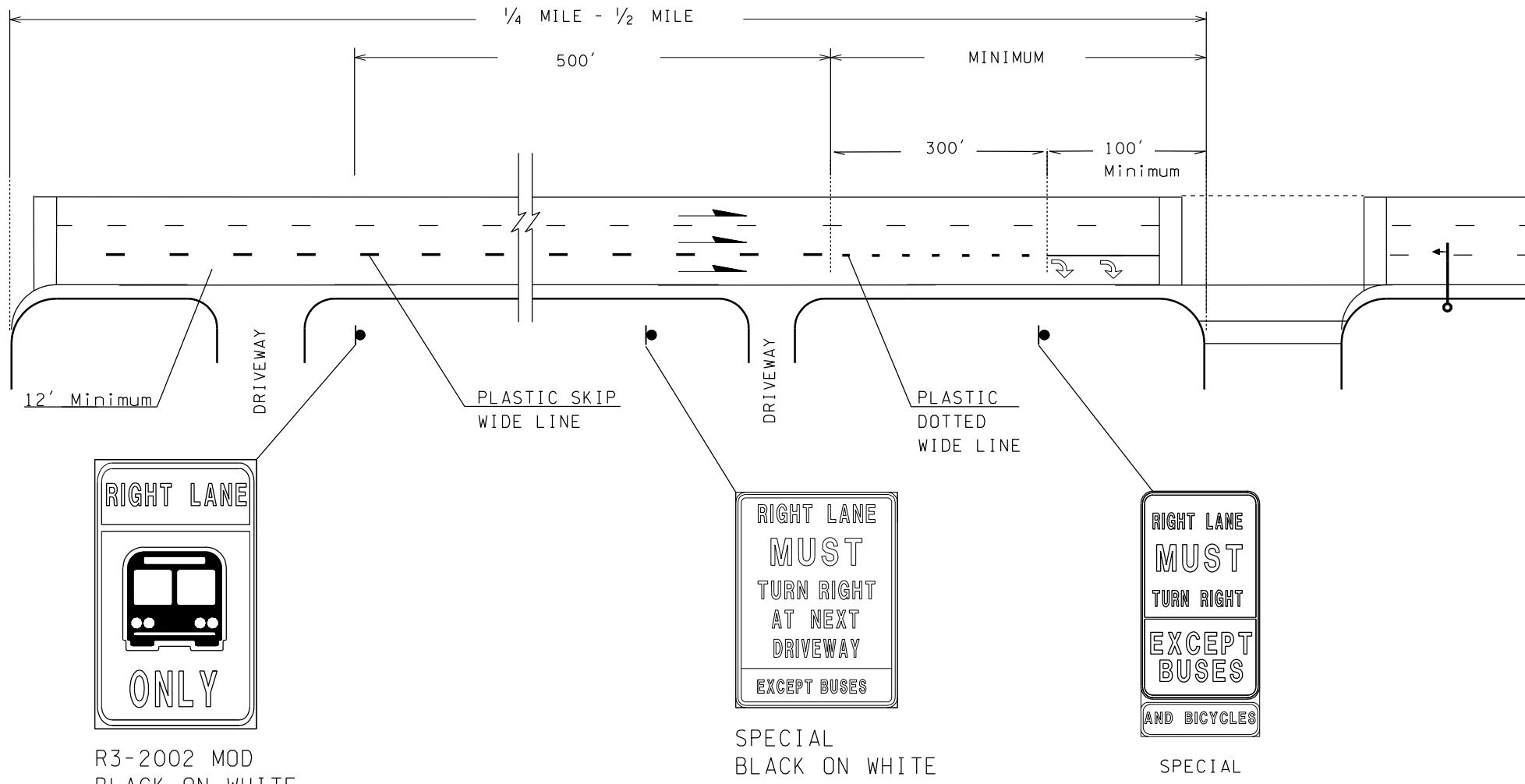
NOTES:

- 1) ARTERIAL SPACING FOR BUS LANE SYMBOLS TO BE 500'
- 2) BUS SIGN SPACINGS SHOULD BE COORDINATED WITH ALL OTHER SIGNS AND NOT LESS THAN 500'
- 3) PLASTIC STRIPING REFERS TO TYPE A OR D MATERIAL, SS 9-34.
- 4) ARROWS/CROSSWALK/PER STANDARD PLAN/ADA REQUIREMENTS

TYPICAL ARTERIAL BUS LANE WITH FREQUENT DRIVEWAYS -- BICYCLES ALLOWED

(SIGNS AND SCHEMATIC--NOT TO SCALE)

(CHECK DIMENSIONS ON SIGN SHEETS)

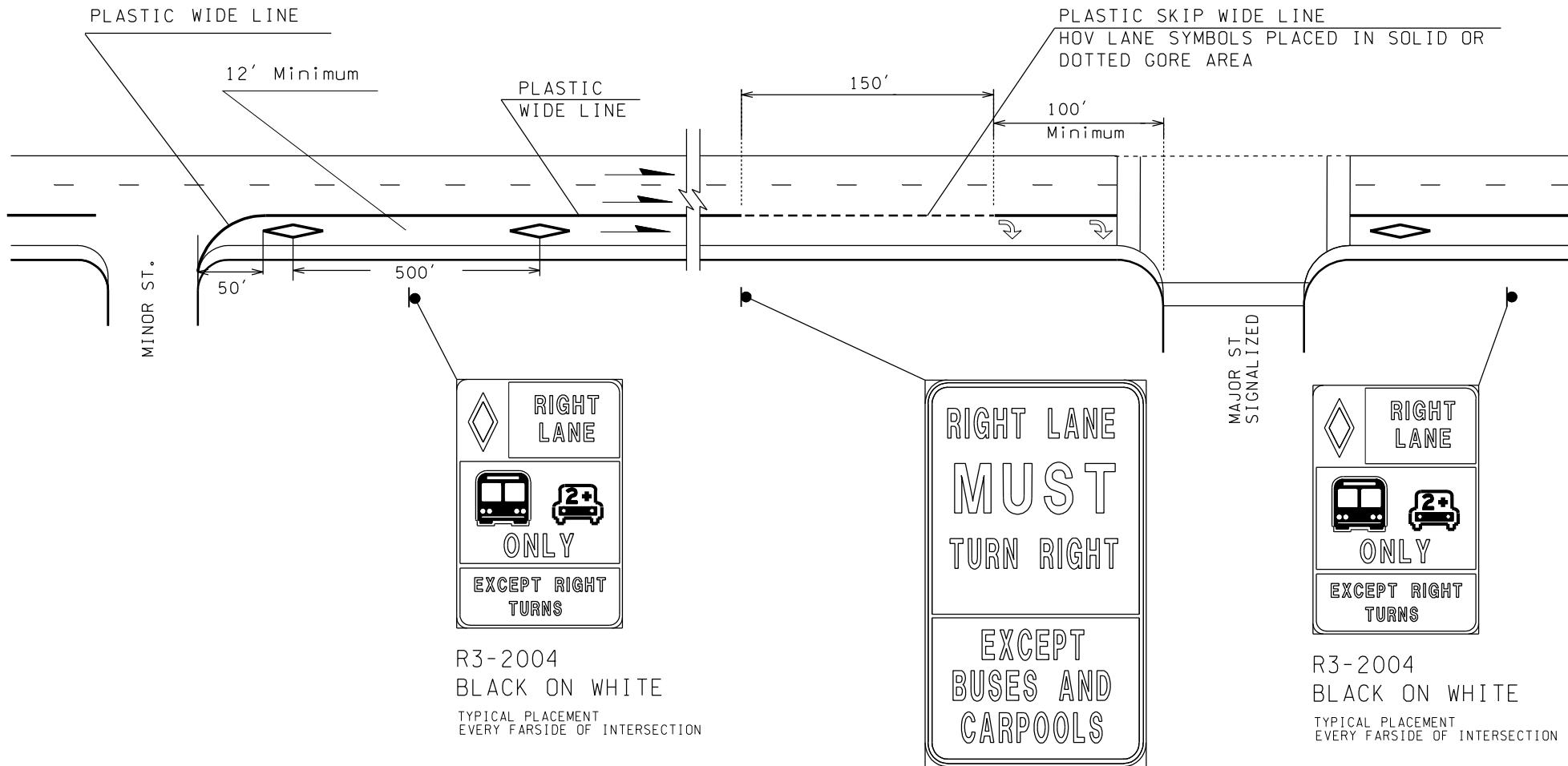


NOTES:

- 1) ARTERIAL SPACING FOR BUS LANE SYMBOLS TO BE 500'
- 2) BUS SIGN SPACINGS SHOULD BE COORDINATED WITH ALL OTHER SIGNS AND NOT LESS THAN 500'
- 3) PLASTIC STRIPING REFERS TO TYPE A OR D MATERIAL, SS 9-34
- 4) ARROWS/CROSSWALK/PER STANDARD PLAN/ADA REQUIREMENTS

TYPICAL ARTERIAL HOV LANE FOR SIGNALIZED INTERSECTION

(SIGNS AND SCHEMATIC--NOT TO SCALE)
 (CHECK DIMENSIONS ON SIGN SHEETS)



NOTES:

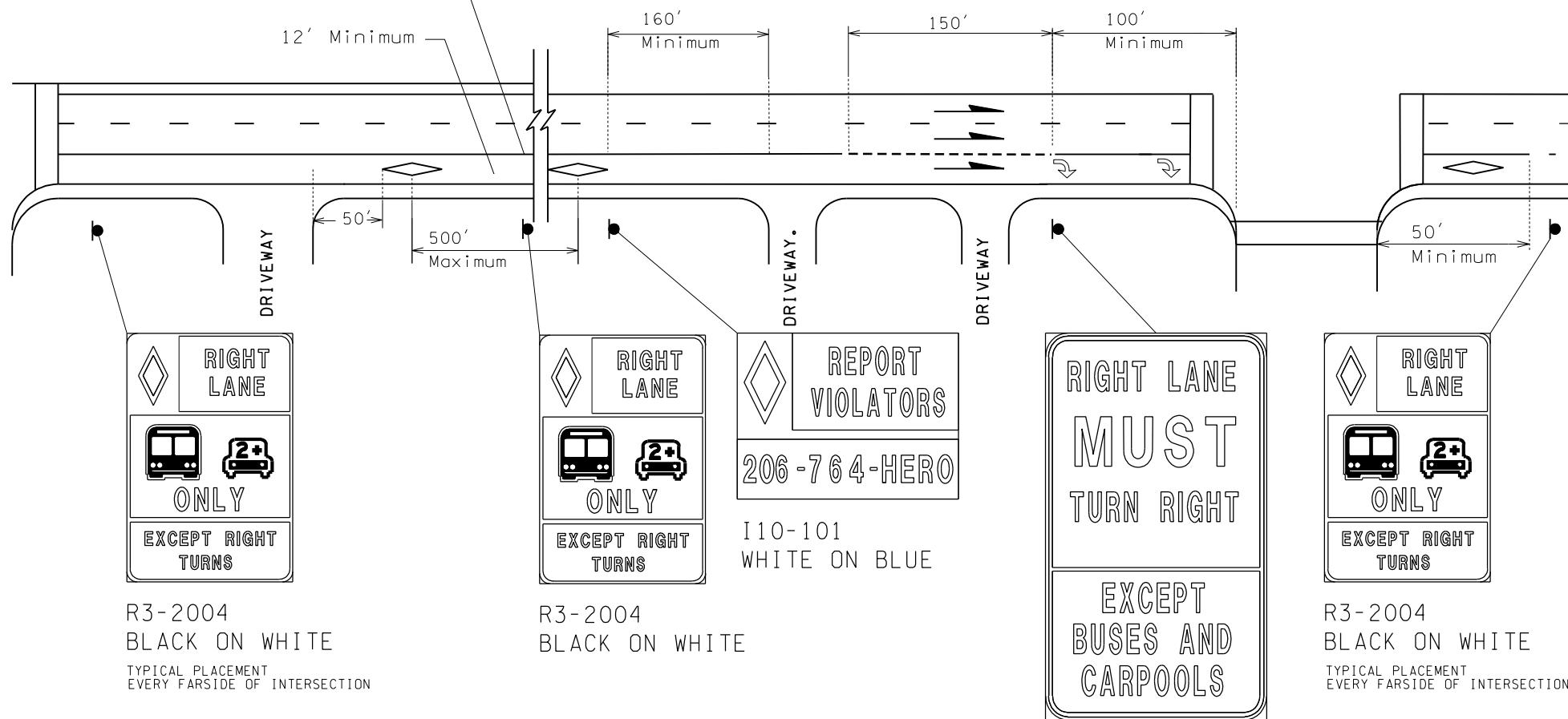
- 1) ARTERIAL SPACING FOR HOV LANE SYMBOLS TO BE 500'
- 2) HOV SIGN SPACINGS SHOULD BE COORDINATED WITH ALL OTHER SIGNS AND NOT LESS THAN 500'
- 3) PLASTIC LINES REFER TO TYPE A OR D MATERIAL, SS 9-34.
- 4) ARROWS/CROSSWALK/ PER STANDARD PLAN/ADA REQUIREMENTS
- 5) HOV LANE SYMBOLS ARE 12', PER DETAIL
- 6) FOR VARIABLE HOUR OPERATION USE PREFERRED ALTERNATIVE SIGNS FROM SIGN DETAILS.

TYPICAL ARTERIAL HOV LANE WITH FREQUENT DRIVEWAYS

(SIGNS AND SCHEMATIC--NOT TO SCALE)

(CHECK DIMENSIONS ON SIGN SHEETS)

PLASTIC SKIP WIDE LINE--SOLID IF 300'
OR MORE BETWEEN DRIVEWAYS.

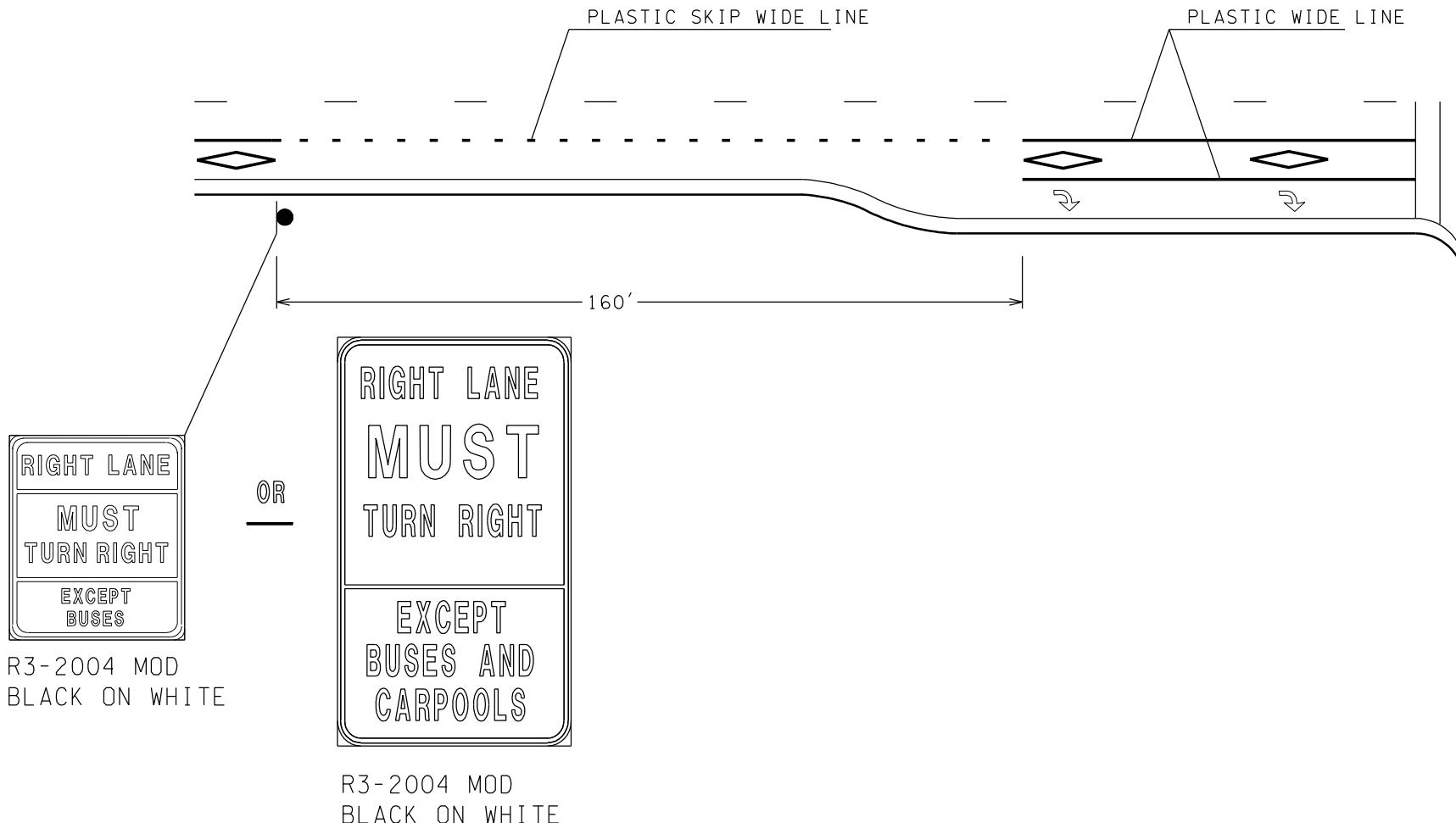


NOTES:

- 1) ARTERIAL SPACING FOR HOV LANE SYMBOLS TO BE 500'
- 2) HOV SIGN SPACINGS SHOULD BE COORDINATED WITH ALL OTHER SIGNS AND NOT LESS THAN 500'
- 3) PLASTIC LINES REFERS TO TYPE A OR D MATERIAL, SS 9-34.
- 4) ARROWS/CROSSWALK/PER STANDARD PLAN/ADA REQUIREMENTS
- 5) HOV LANE SYMBOLS ARE 12', PER DETAIL
- 6) FOR VARIABLE HOUR OPERATION USE PREFERRED ALTERNATIVE SIGNS FROM SIGN DETAILS.

RIGHT TURN LANE/POCKET AT INTERSECTIONS WITH HIGH RIGHT TURNING VOLUME

(SIGNS AND SCHEMATIC--NOT TO SCALE)
(CHECK DIMENSION ON SIGN SHEETS)



R3-2004 MOD
BLACK ON WHITE

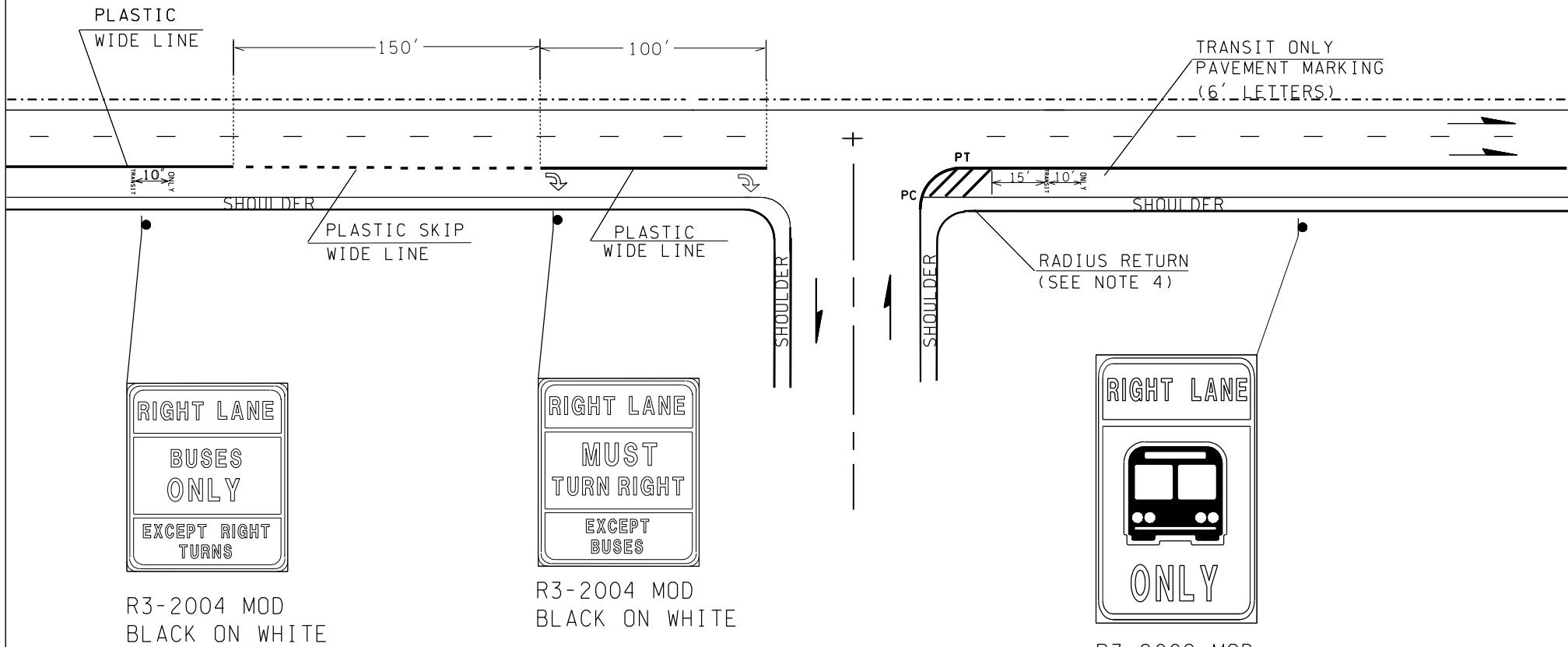
R3-2004 MOD
BLACK ON WHITE

NOTES:

- 1) ARTERIAL SPACING FOR HOV LANE SYMBOLS TO BE 500'
- 2) HOV SIGN SPACINGS SHOULD BE COORDINATED WITH ALL OTHER SIGNS AND NOT LESS THAN 500'
- 3) PLASTIC STRIPING REFERS TO TYPE A OR D MATERIAL, SS 9-34.
- 4) ARROWS/CROSSWALK/PER STANDARD PLAN/ADA REQUIREMENTS
- 5) HOV LANE SYMBOLS ON ARTERIAL ARE 12', PER DETAIL.

TYPICAL BUS ONLY LANE FOR UNSIGNALIZED INTERSECTION

(SIGNS AND SCHEMATIC--NOT TO SCALE)
(CHECK DIMENSIONS ON SIGN SHEETS)



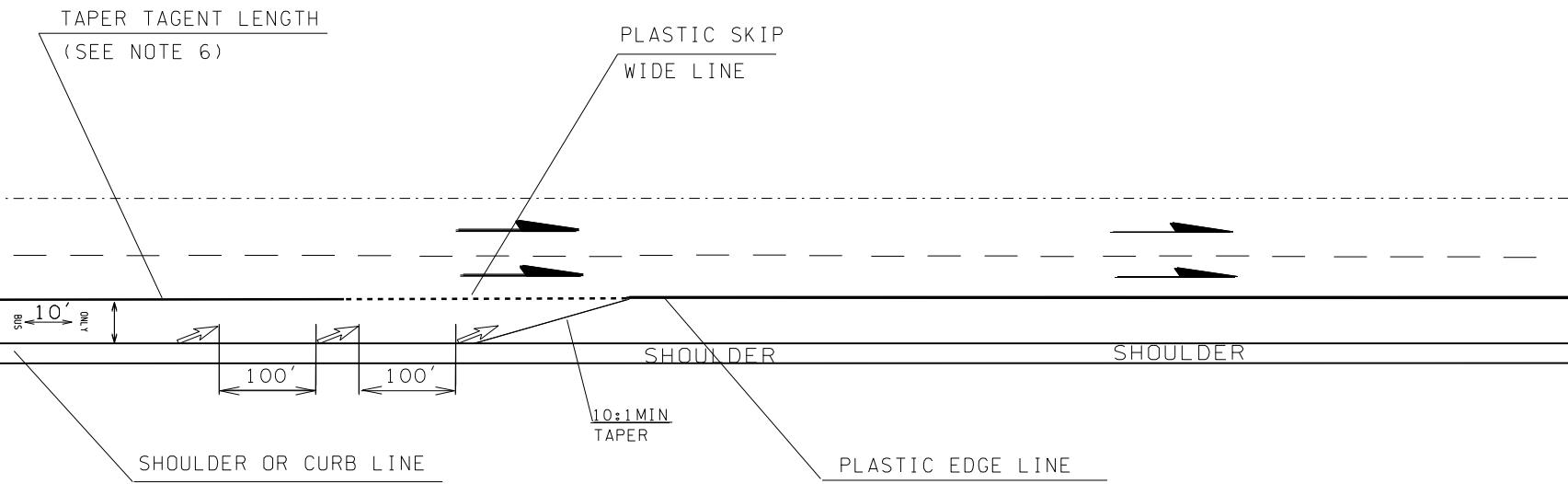
NOTES:

- 1) PLASTIC LINES REFERS TO THERMOPLASTIC OR METHACRYLATE.
- 2) LONG-LINE BUS LINES DONE IN TYPE A MATERIAL; ALL PAVEMENT MARKINGS DONE IN TYPE D MATERIAL, SS 9-34.
- 3) NO HOV LANE SYMBOLS USED WHERE THE RESTRICTED LANE IS A "BUS ONLY" LANE.
- 4) 8" WHITE DIAGONAL DASH LINES 45 DEGREE ANGLE; 3 LINES PER RADIUS RETURN AREA.

BUS ONLY LANE REDUCTION

(SIGNS AND SCHEMATIC--NOT TO SCALE)

(CHECK DIMENSIONS ON SIGN SHEETS)



NOTES:

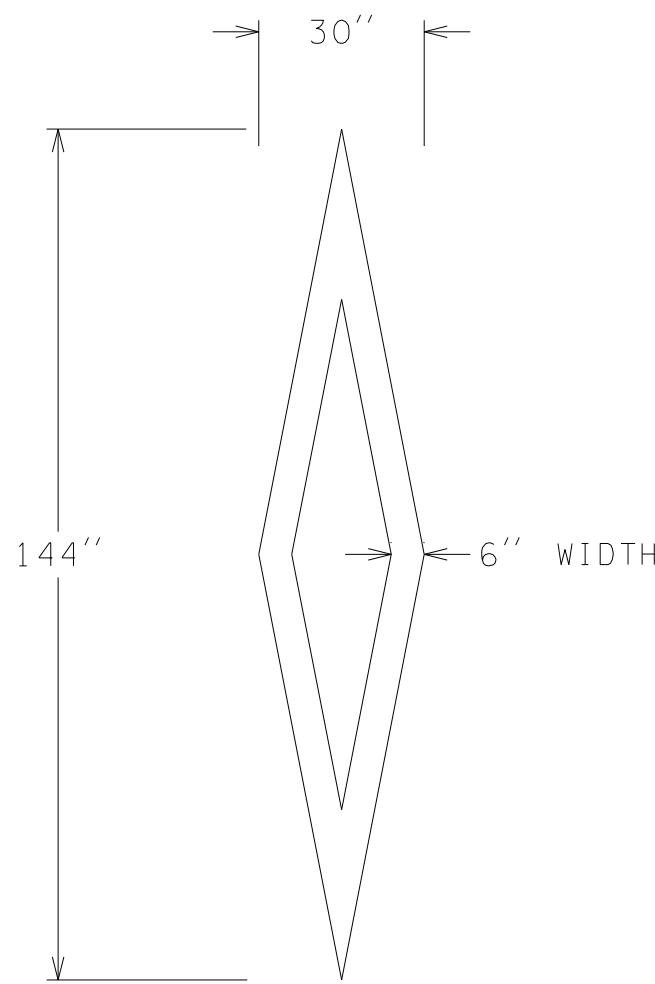
- 1) PLASTIC LINES REFER TO TYPE A OR D MATERIAL, SS 9-34.
- 2) LONG-LINE BUS LANE LINES DONE IN TYPE A MATERIAL; ALL PAVEMENT MARKINGS DONE IN TYPE D MATERIAL, SS 9-34.
- 3) NO HOV LANE SYMBOLS USED WHERE THE RESTRICTED LANE IS A "BUS ONLY" LANE.
- 4) 8" WHITE DIAGONAL DASH LINES 45 DEGREE ANGLE; 3 LINES PER RADIUS RETURN AREA.
- 5) DIAGONAL ARROWS LAYOUT PER RED BOOK
- 6) DESIRABLE TAPER TANGENT LENGTH $W \times$ POSTED SPEED EG (12FT \times 45 = 540FT MIN 150FT)

Section 5

Pavement Markings

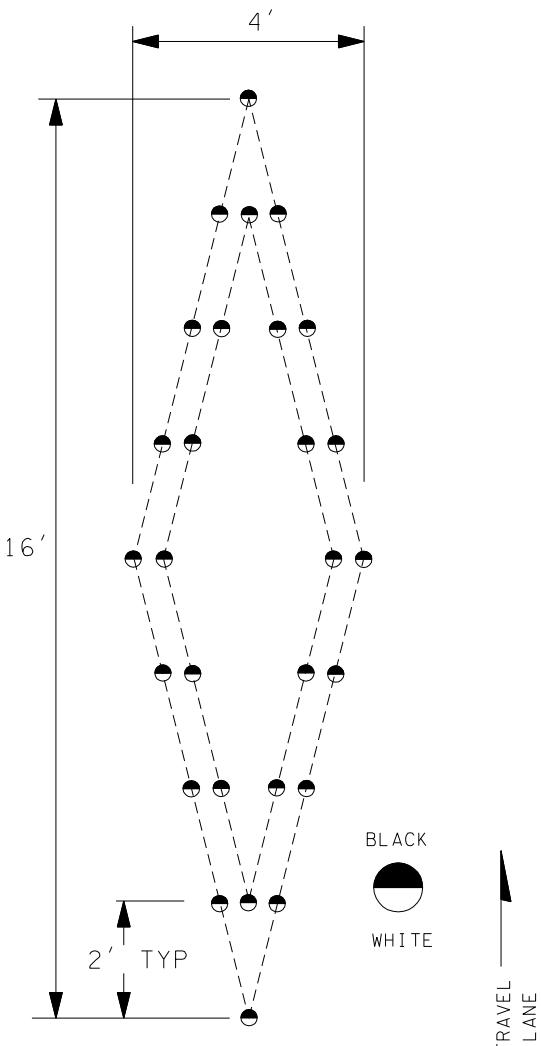
HOV Lane Symbols

(STANDARD APPLICATIONS)



MAINLINE AND ARTERIALS
PLASTIC HOV LANE
SYMBOL TYPE 2

TYPE D MATERIAL SS 9-34



REVERSIBLE LANE DIAMONDS
TYP 1 UNIDIRECTIONAL MARKERS

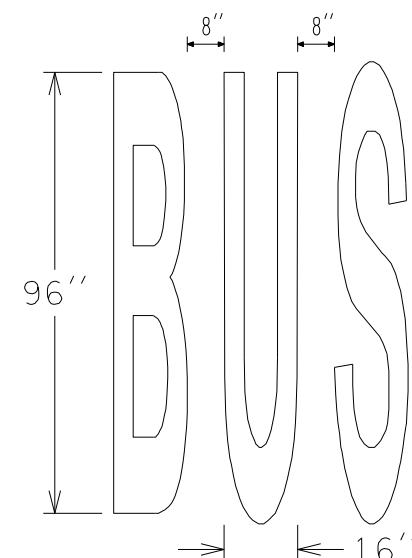
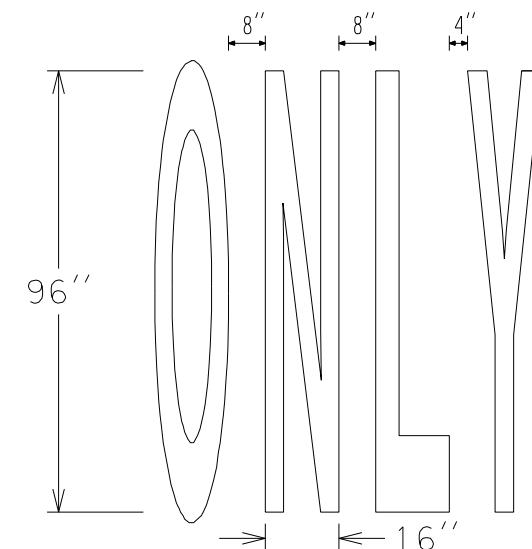
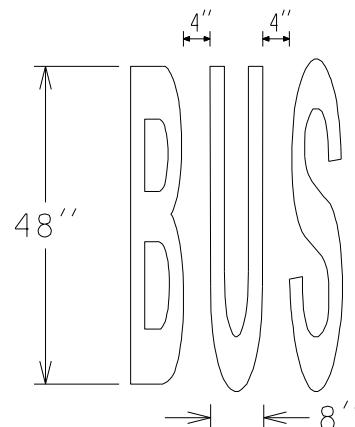
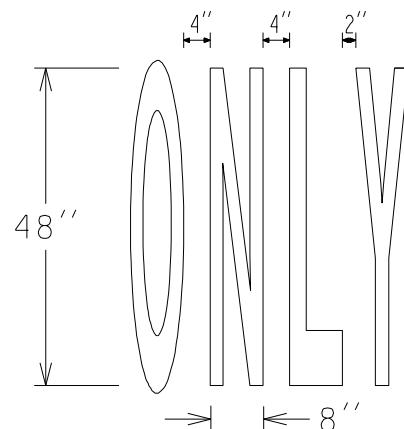
FREEWAY

BUS LANE - SPACING FOR LEGEND MARKINGS

NOTES:

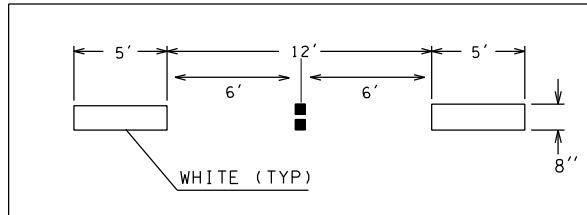
- 1) CONTRACTOR SHALL USE METHACRYLATE MATERIAL
- 2) WSDOT MAINTANENCE SHALL USE PREFORMED THERMOPLASTIC MATERIAL
- 3) ARTERIAL MARKINGS SHALL HAVE A SPACING OF 10' BETWEEN WORDS.
- 4) FREEWAY MARKINGS SHALL HAVE A SPACING OF 20' BETWEEN WORDS.

ARTERIAL

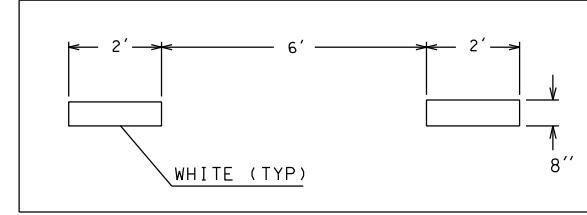


HOV STRIPE DETAILS

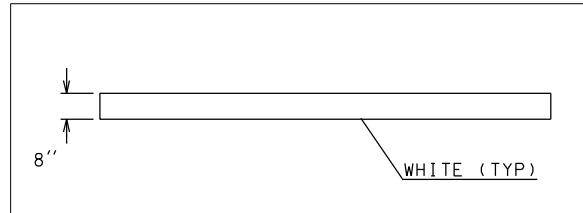
(SCHEMATIC--NOT TO SCALE)



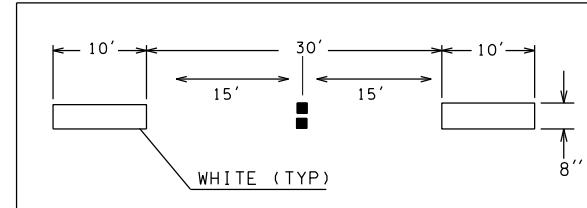
* DROP LANE LINE DETAIL



DOTTED WIDE LINE DETAIL



WIDE LINE DETAIL

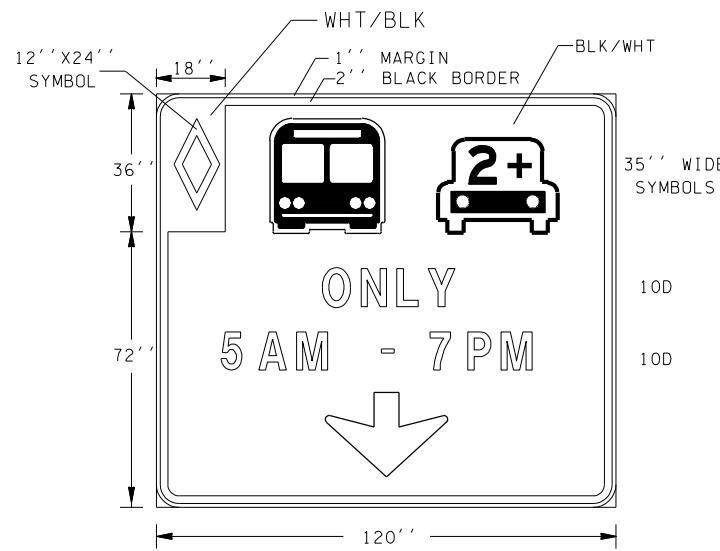


SKIP WIDE LINE DETAIL

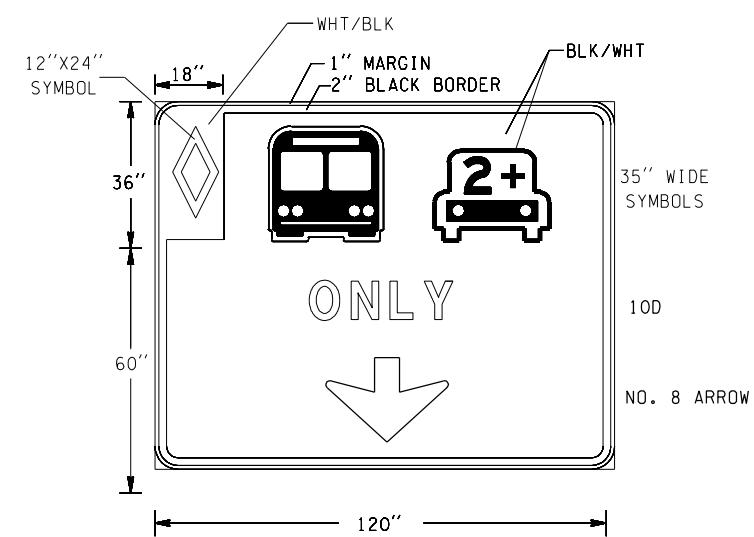
Section 6

Sign Details

Freeway Signing: Preferred HOV Overhead Signs

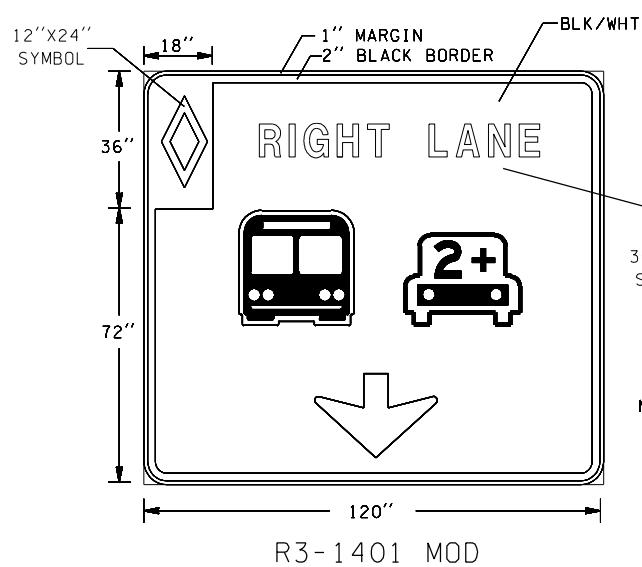


R3-1401MOD (VARIABLE OPERATION)
BLACK ON WHITE



R3-1401MOD (24 HOUR OPERATION)
BLACK ON WHITE

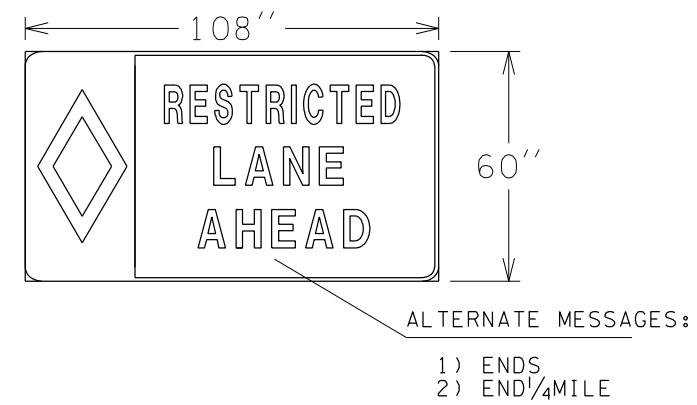
Freeway Signing: Alternative HOV Overhead Signs



R3-1401 (24 HOUR OPERATION)
BLACK ON WHITE

ALTERNATE MESSAGES:
1) LEFT LANE
2) DIRECT ACCESS/P&R NAME

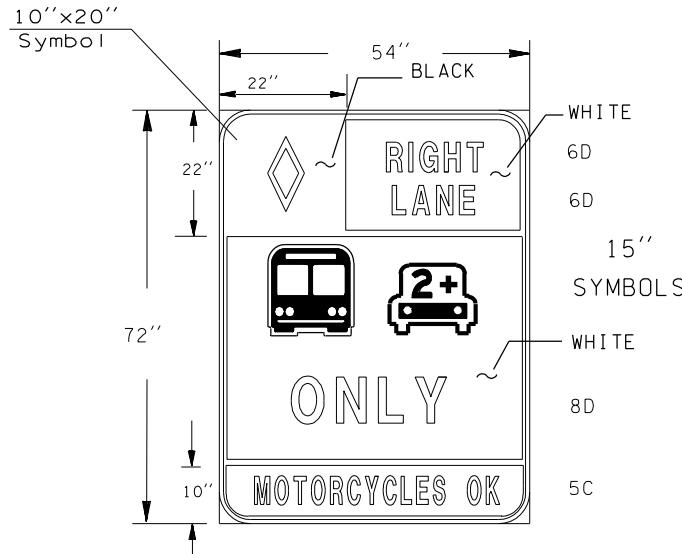
35" WIDE
SYMBOLS
NO. 8 ARROW



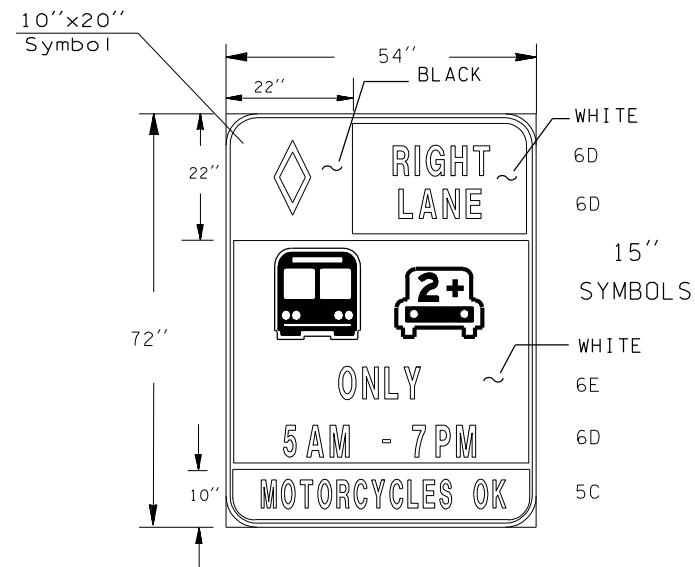
ALTERNATE MESSAGES:
1) ENDS
2) END $\frac{1}{4}$ MILE

R3-13 (24 HOUR OPERATION)
BLACK ON WHITE

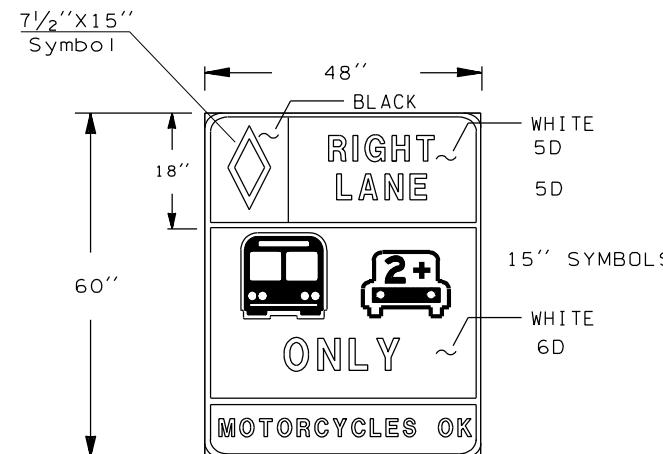
Freeway Signing: Preferred HOV Shoulder Mount Signs



R3-1102R MOD (24 HOUR OPERATION)
BLACK ON WHITE

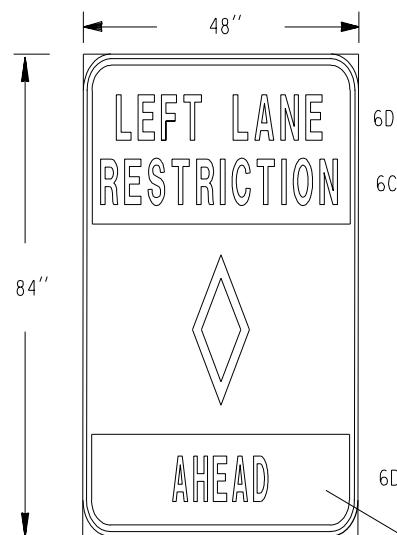


R3-1002R (VARIABLE OPERATION)
BLACK ON WHITE



R3-1102R (24 HOUR OPERATION)
BLACK ON WHITE

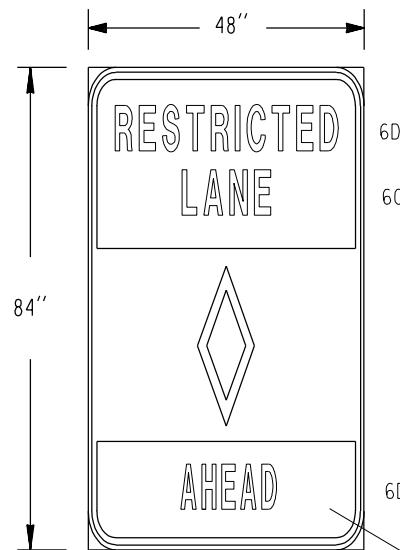
Freeway Signing: HOV Lane Beginning/Ending Signs



R3-103
BLACK ON WHITE

ALTERNATE MESSAGES:

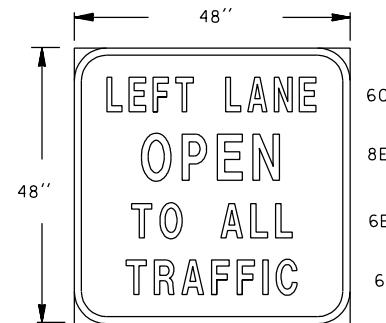
- 1) $\frac{1}{4}$ MILE AHEAD
- 2) ENDS
- 2) END $\frac{1}{4}$ MILE



R3-10
BLACK ON WHITE

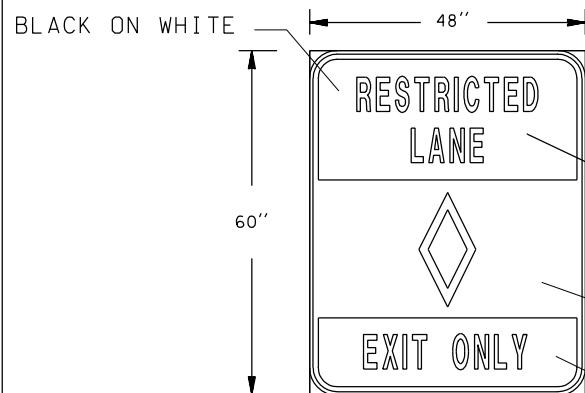
ALTERNATE MESSAGES:

- 1) $\frac{1}{4}$ MILE AHEAD
- 2) ENDS
- 2) END $\frac{1}{4}$ MILE

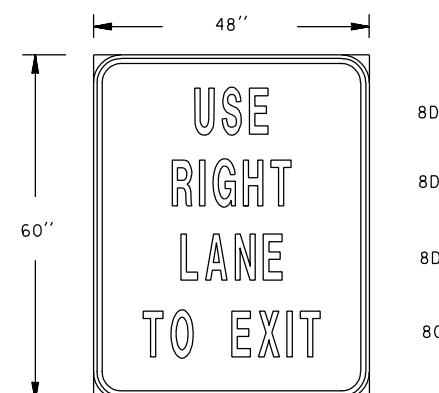


R3-103
BLACK ON WHITE

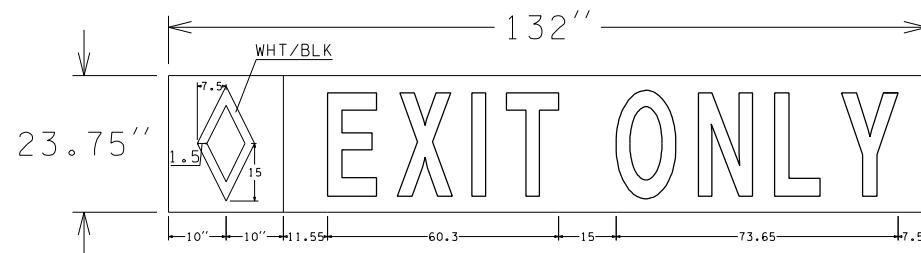
Freeway Signing: HOV Exit Signs



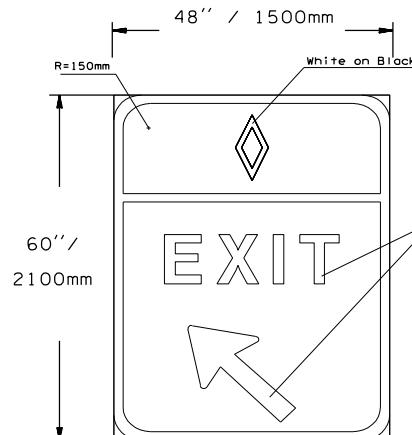
R3-000



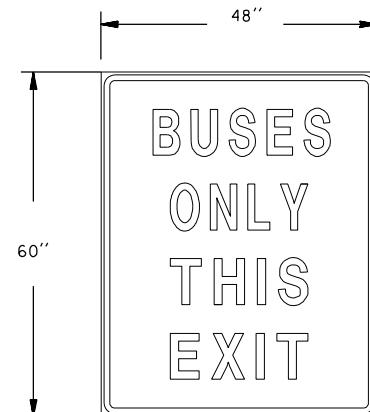
R3-703
BLACK ON WHITE



18C
SHRINK SPACING
BLACK/YELLOW

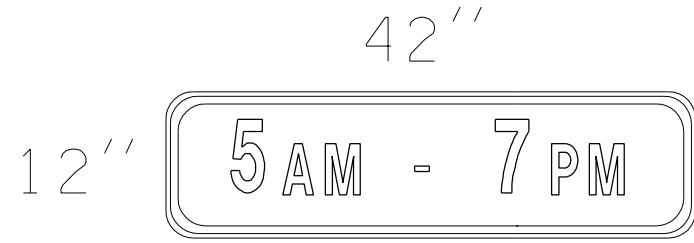
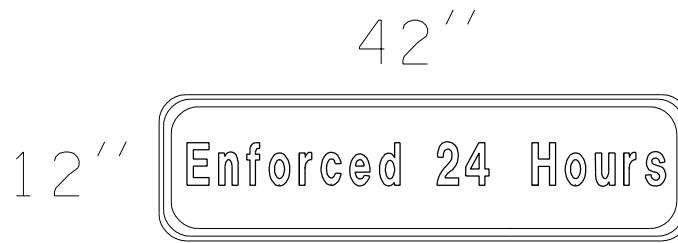


E5-1 MOD
BLACK ON WHITE



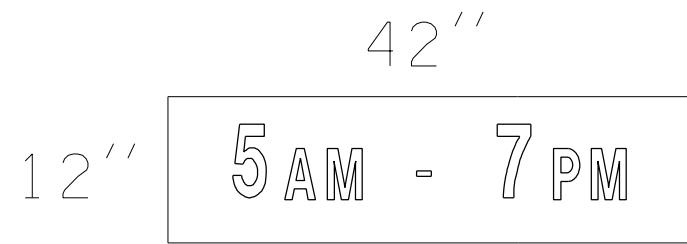
SPECIAL
BLACK ON WHITE

Plaques
For HOV Signs



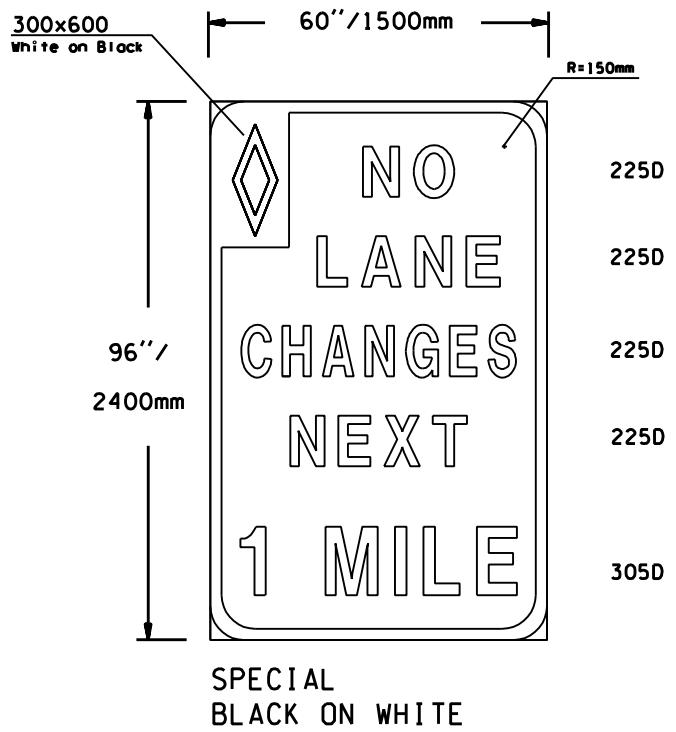
7D/5D
BLACK ON WHITE

8D/6D
BLACK ON WHITE

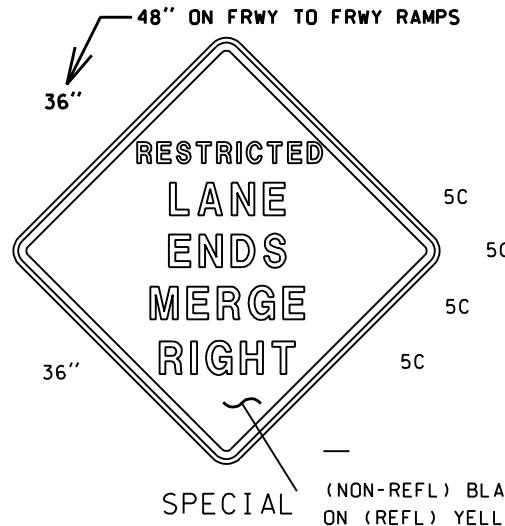


8D/6D
BLACK ON WHITE
NO BORDERS

HOV Signing: Supplementary Signs



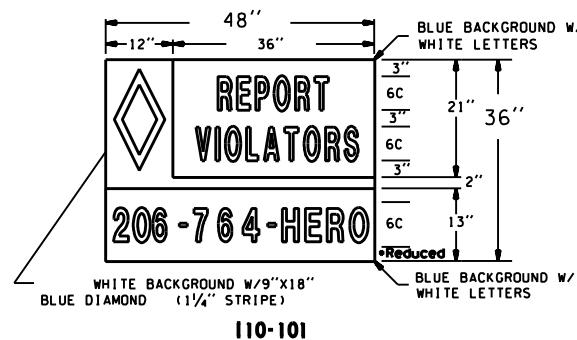
SPECIAL
BLACK ON WHITE



SPECIAL
(NON-REFL) BLACK
ON (REFL) YELLOW

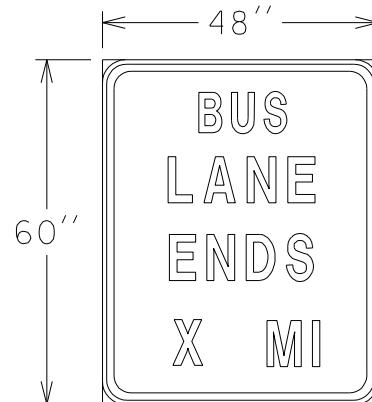


SPECIAL
PANTONES 072, 100
(BLUE, YELLOW)

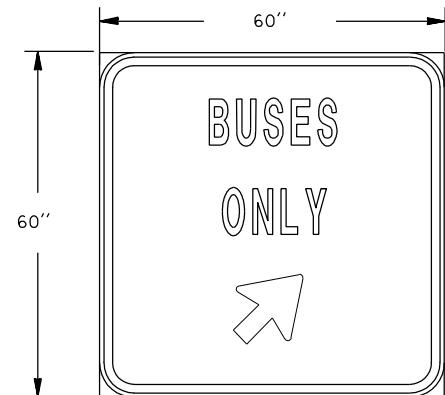


I10-101
WHITE ON BLUE

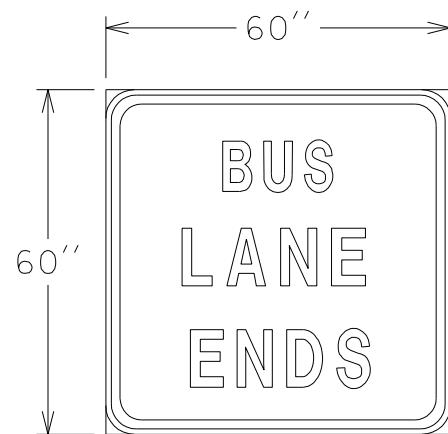
Freeway Signing: Bus Lane Signs



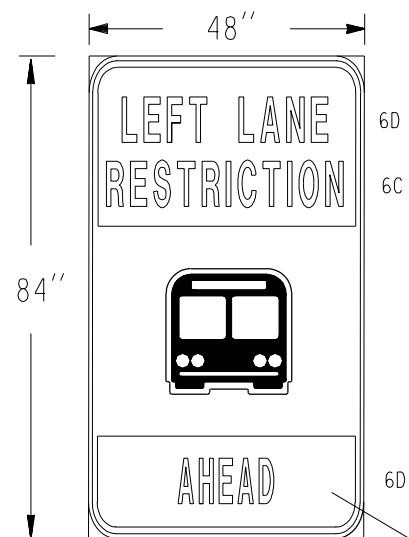
R3-1503
BLACK ON WHITE



R3-2003
BLACK ON WHITE



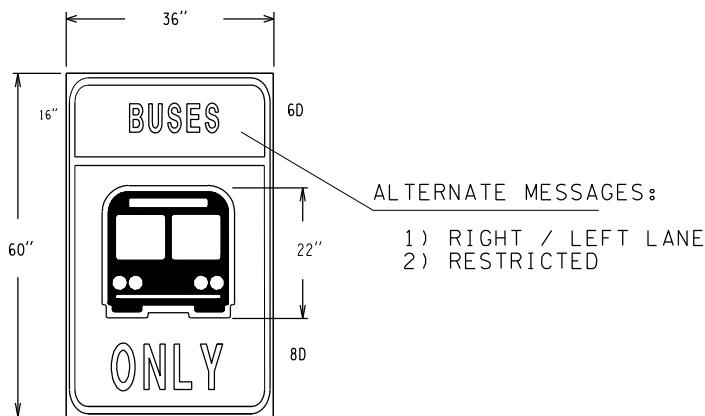
R3-1502
BLACK ON WHITE



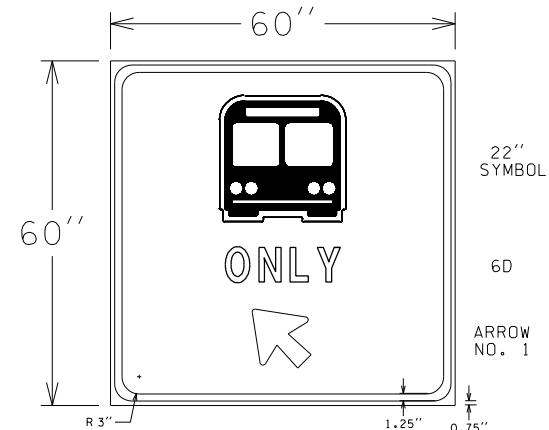
R3-103 MOD
BLACK ON WHITE

ALTERNATE MESSAGES:
1) $\frac{1}{4}$ MILE AHEAD
2) ENDS
2) END $\frac{1}{4}$ MILE

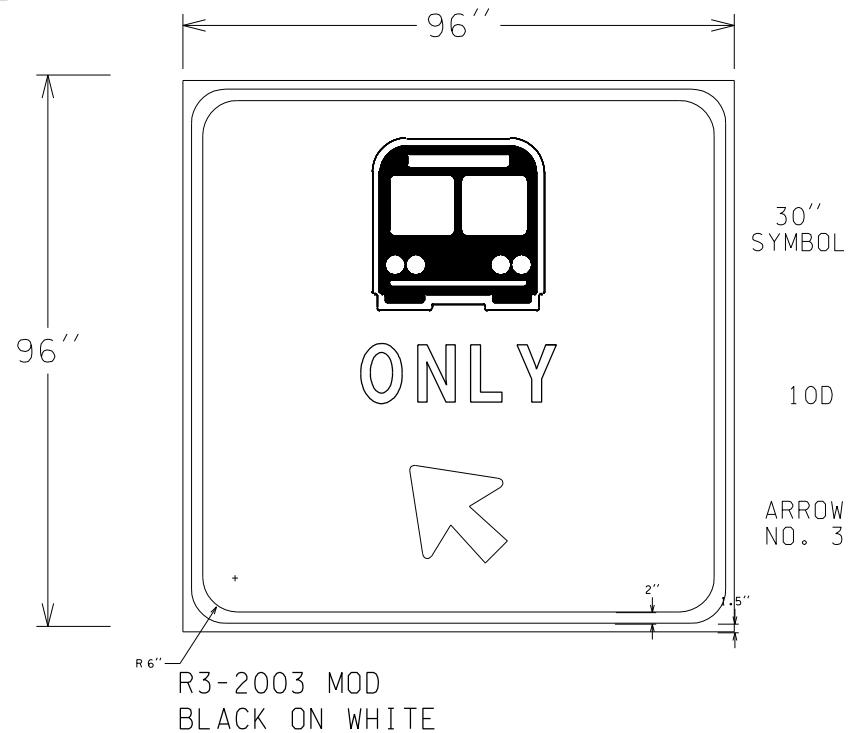
Arterial Signing: Bus Lane Signs



R3-2002 MOD
BLACK ON WHITE

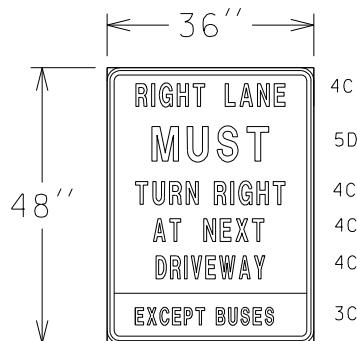


R3-2003 MOD
BLACK ON WHITE

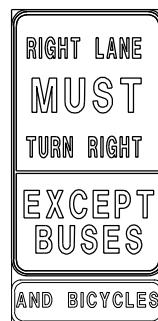


R3-2003 MOD
BLACK ON WHITE

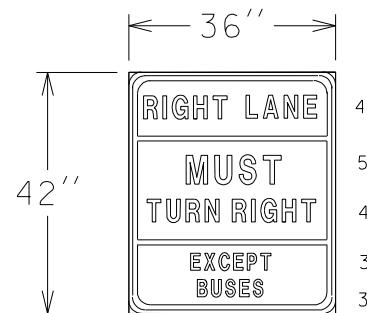
Arterial Signing: Bus / Carpool Lane Signs



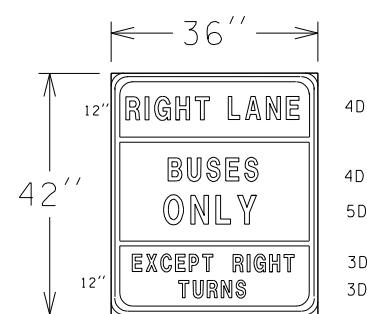
SPECIAL
BLACK ON WHITE



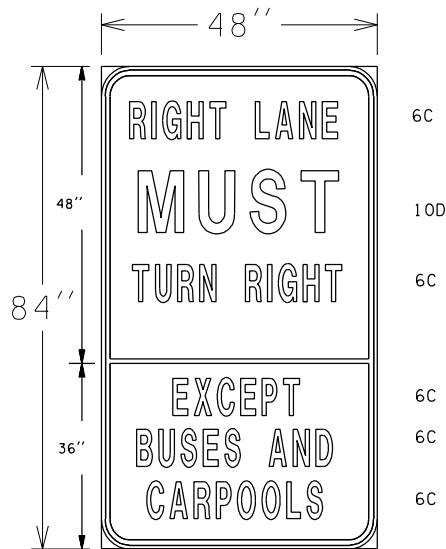
SPECIAL
BLACK ON WHITE



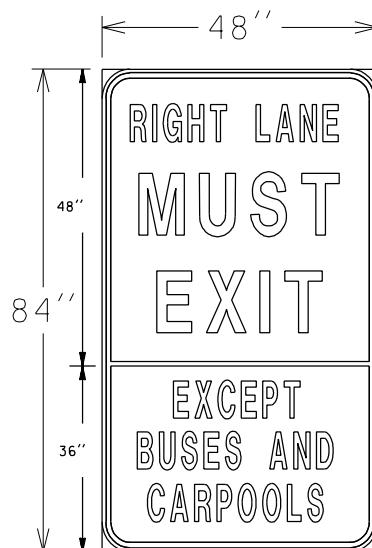
R3-2004 MOD
BLACK ON WHITE



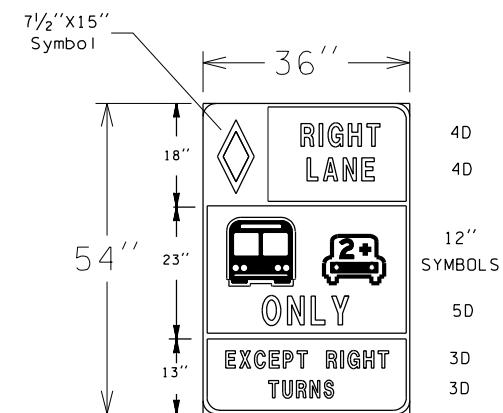
R3-2004 MOD
BLACK ON WHITE



R3-2004 MOD
BLACK ON WHITE

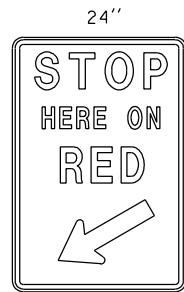


R3-701 MOD
BLACK ON WHITE

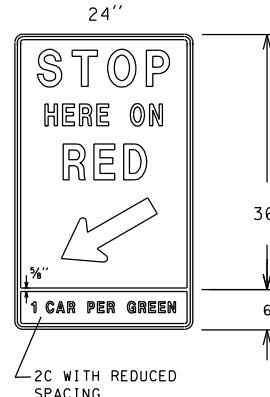


R3-2004
BLACK ON WHITE

Ramp Signing: HOV By-Pass / Ramp Meter Signs



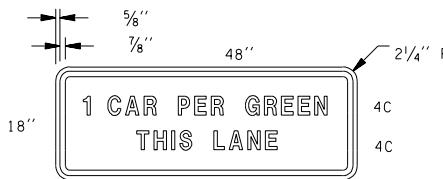
R10-6
BLACK ON WHITE



R10-601
BLACK ON WHITE

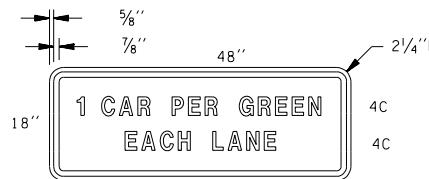


R3-1401
BLACK ON WHITE



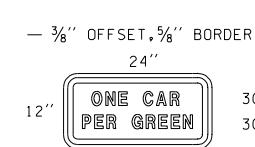
Alternate Message:
2 CARS PER GREEN THIS LANE
(With reduced letter spacing)

R3-1402
BLACK ON WHITE



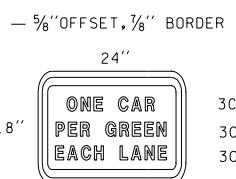
Alternate Message:
2 CARS PER GREEN EACH LANE
(With reduced letter spacing)

R3-1403
BLACK ON WHITE



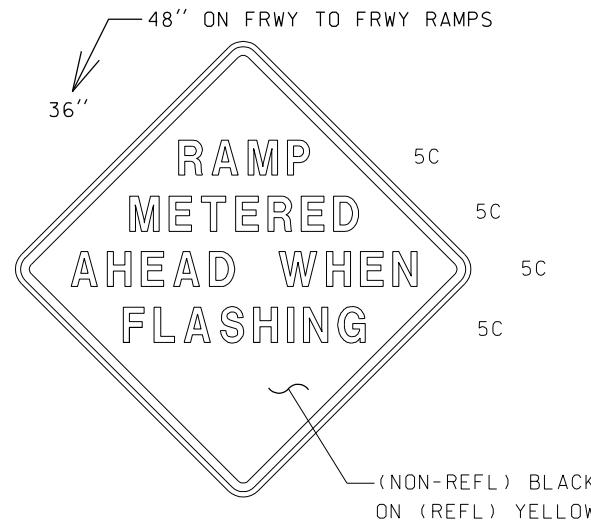
Alternate Message:
2 CARS PER GREEN EACH LANE

R10-1404
BLACK ON WHITE

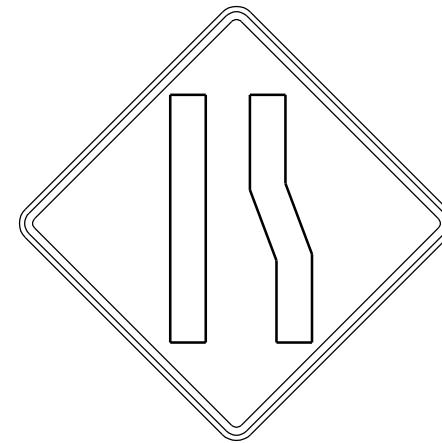


R10-1405
BLACK ON WHITE

HOV Signing: HOV By-Pass / Ramp Meter Supplementary Signs



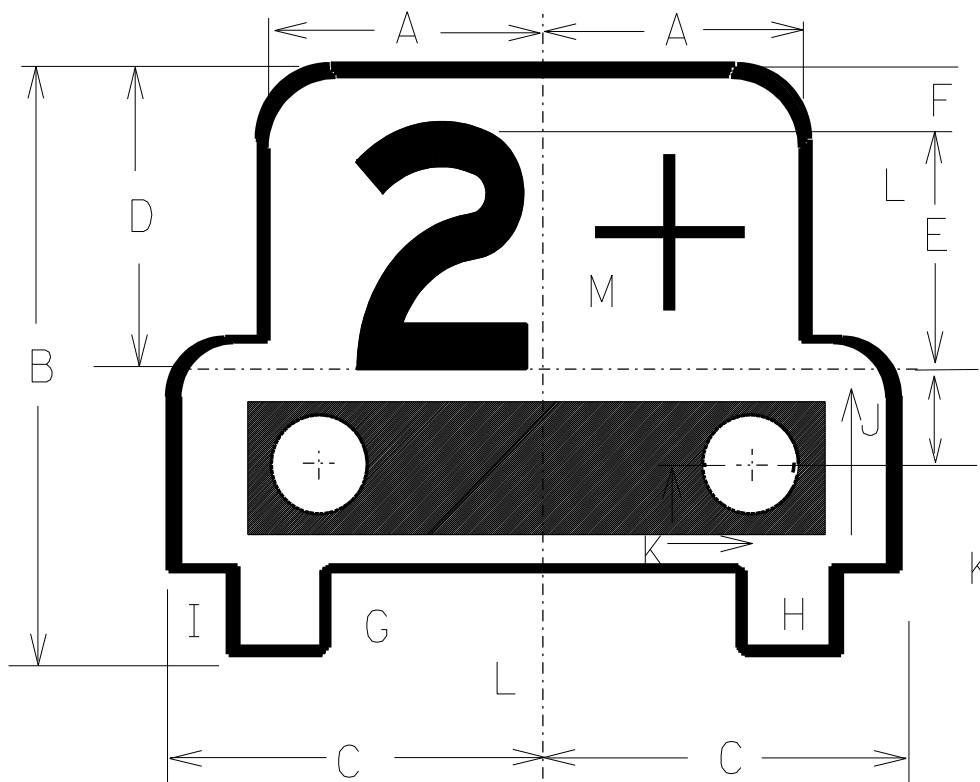
W3-501
BLACK ON YELLOW



W4-2L
BLACK ON YELLOW

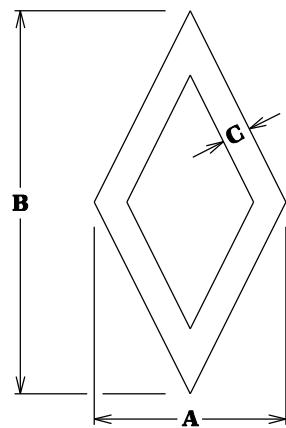
Carpool Symbols (English)

For HOV Signs



SIGN	DIMENSIONS (INCHES)															
	A	B	C	D	E	F	G	H	I	J	M	K	L	R1	R2	R3
MIN	5 3/4	12	7 5/8	5 9/16	6E	2	1 3/4	2	1 1/4	2	2	4 1/2	3/4	1 1/2	1 3/16	1
STD	8 5/8	18	11 1/2	8 3/8	9E	3	2 5/8	3	1 7/8	3	3	6 3/4	1 1/4	2 1/4	1 3/4	1 1/2
SPEC	11 1/2	28	15 1/4	11 1/8	12E	4	3 1/2	4	2 1/2	4	4	9	1 3/4	3	2 3/8	2
SPEC	14 3/8	30	19	13 7/8	15E	5	4 3/8	5	3 1/8	5	5	11 1/4	2	3 3/8	3	2 1/2

Preferential Sign Symbol



ENGLISH (inches)

Symbol Size	A	B	C
5X10	5"	10"	3/4"
7½X15	7½"	15"	1⅛"
8X16	8"	16"	1⅓"
9X18	9"	18"	1⅔"
10X28	10"	20"	1½"
12X28	12"	24"	2"
16X32	16"	32"	2½"
28X40	20"	40"	3"